

SCE Planning Area Forecast

Staff Presentation
June 30, 2005



CED 2006 Forecast Differences

- **2006 forecasts are higher due to higher initial starting values**
- **2006 energy forecast growth is slightly lower than CED 2003 forecast**
- **2006 peak growth is slightly higher than CED 2003 forecast**
- **Peak was increased to adjust for normal weather**
- **2006 per capita forecasts increase slightly**
- **2006 load factor decreases slightly**



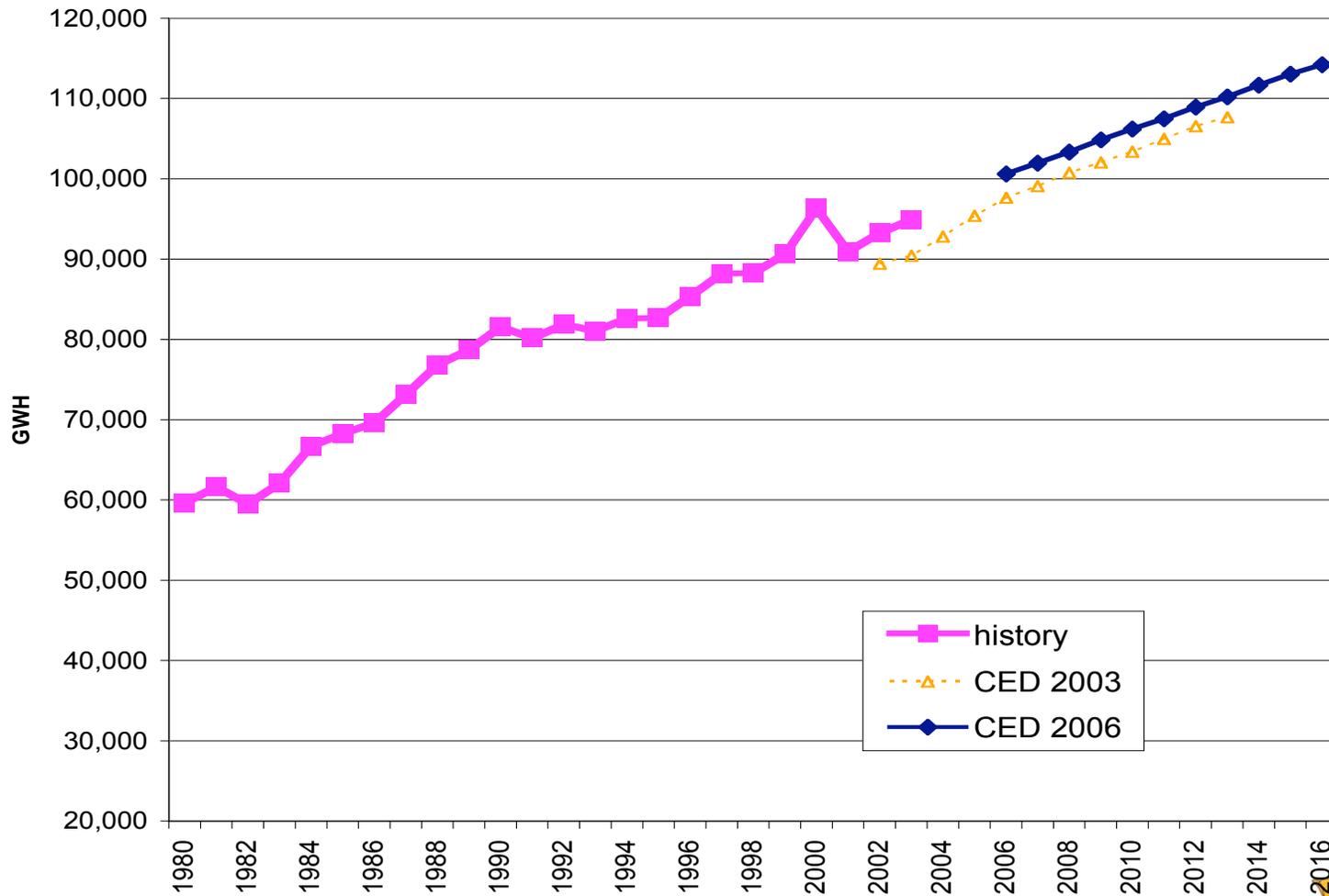
SCE Planning Area Forecast Results

	Consumption (GWH)				Peak (MW)		
	CED 2003	CED 2006	%difference		CED 2003	CED 2006	%difference
1990	81,673	81,579	-0.12%		17,647	17,564	-0.47%
2000	96,496	96,319	-0.18%		19,757	19,465	-1.48%
2003	90,419	94,909	4.97%		19,118	19,907	4.13%
2008	100,745	103,354	2.59%		21,211	22,468	5.93%
2013	107,654	110,233	2.40%		22,558	24,108	6.87%
2016	n/a	114,230			n/a	25,066	
Annual Average Growth Rates							
1990-2000	1.68%	1.67%			1.14%	1.03%	
2000-2003	-2.15%	-0.49%			-1.09%	0.75%	
2003-2008	2.19%	1.72%			2.10%	2.45%	
2003-2013	1.76%	1.51%			1.67%	1.93%	

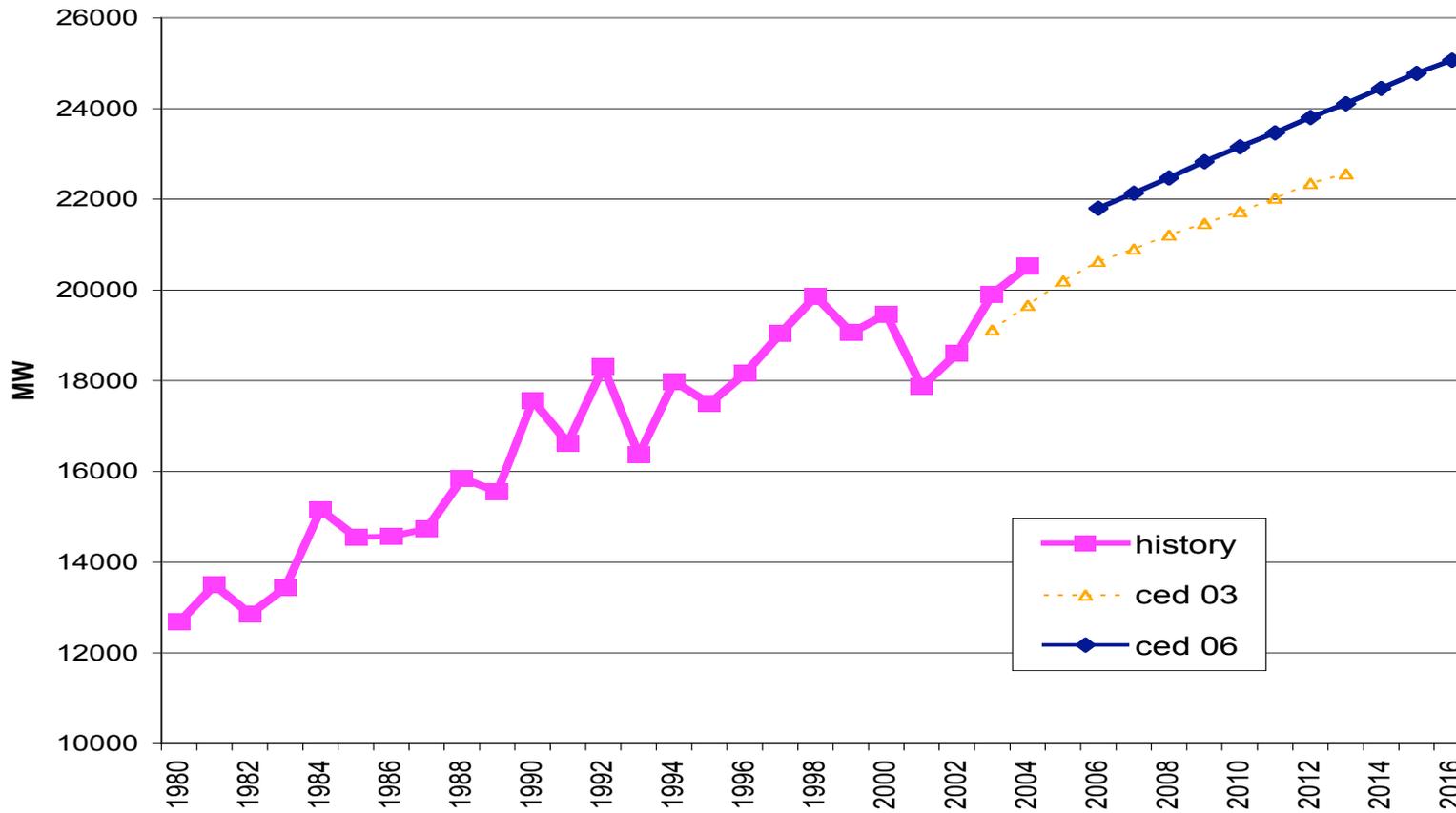
Historic values are shaded



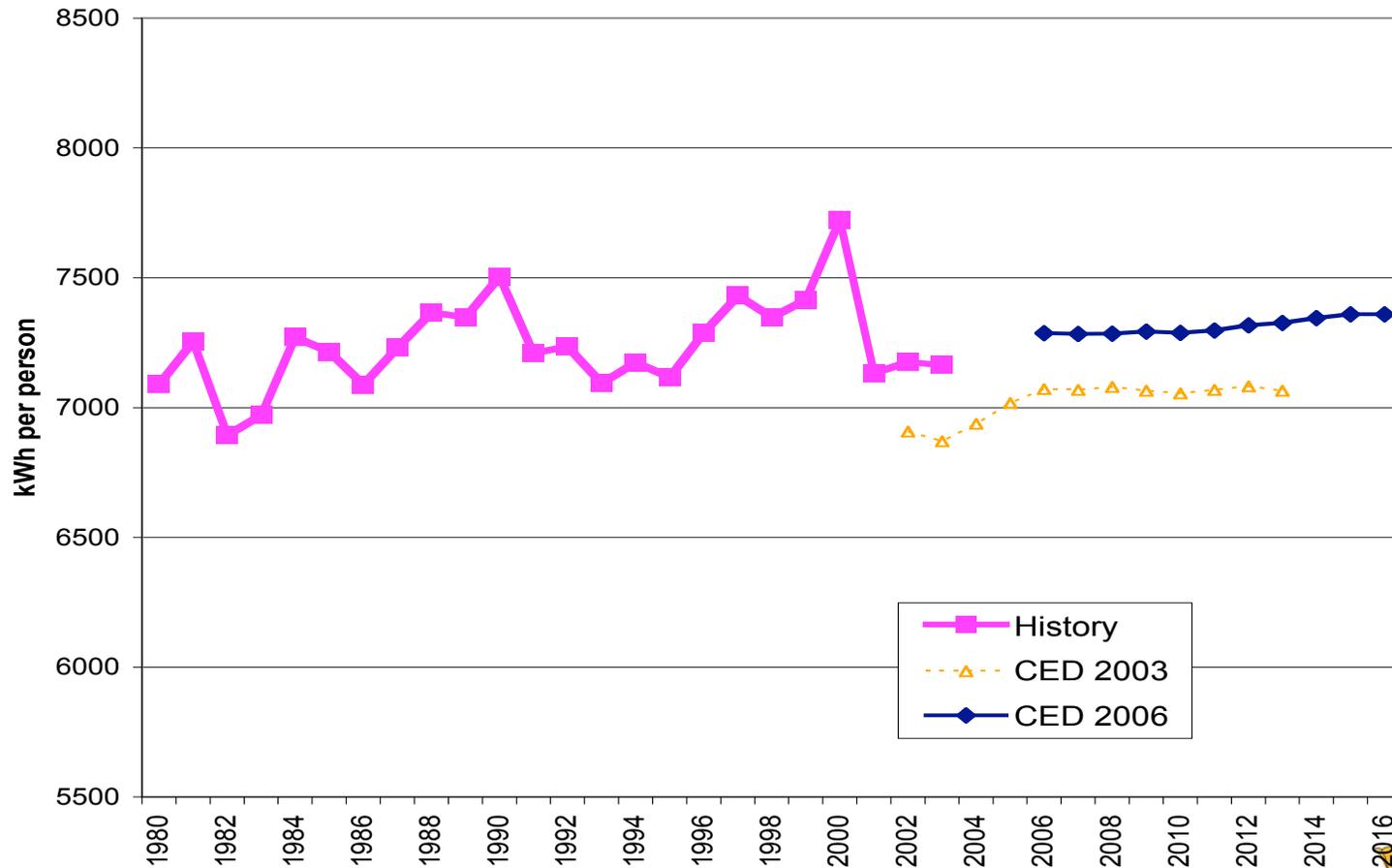
SCE Planning Area Forecast



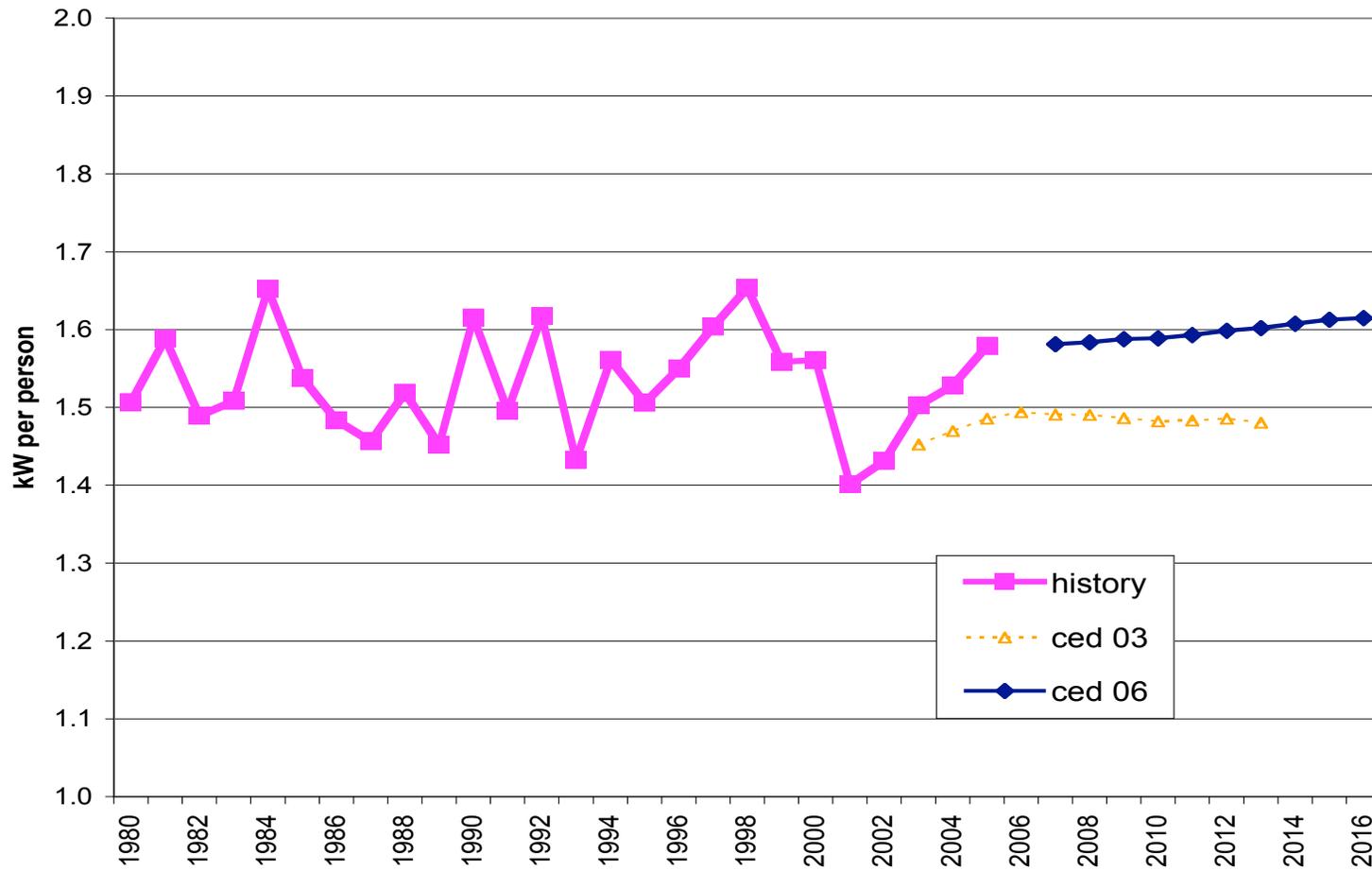
SCE Planning Area Peak Forecast



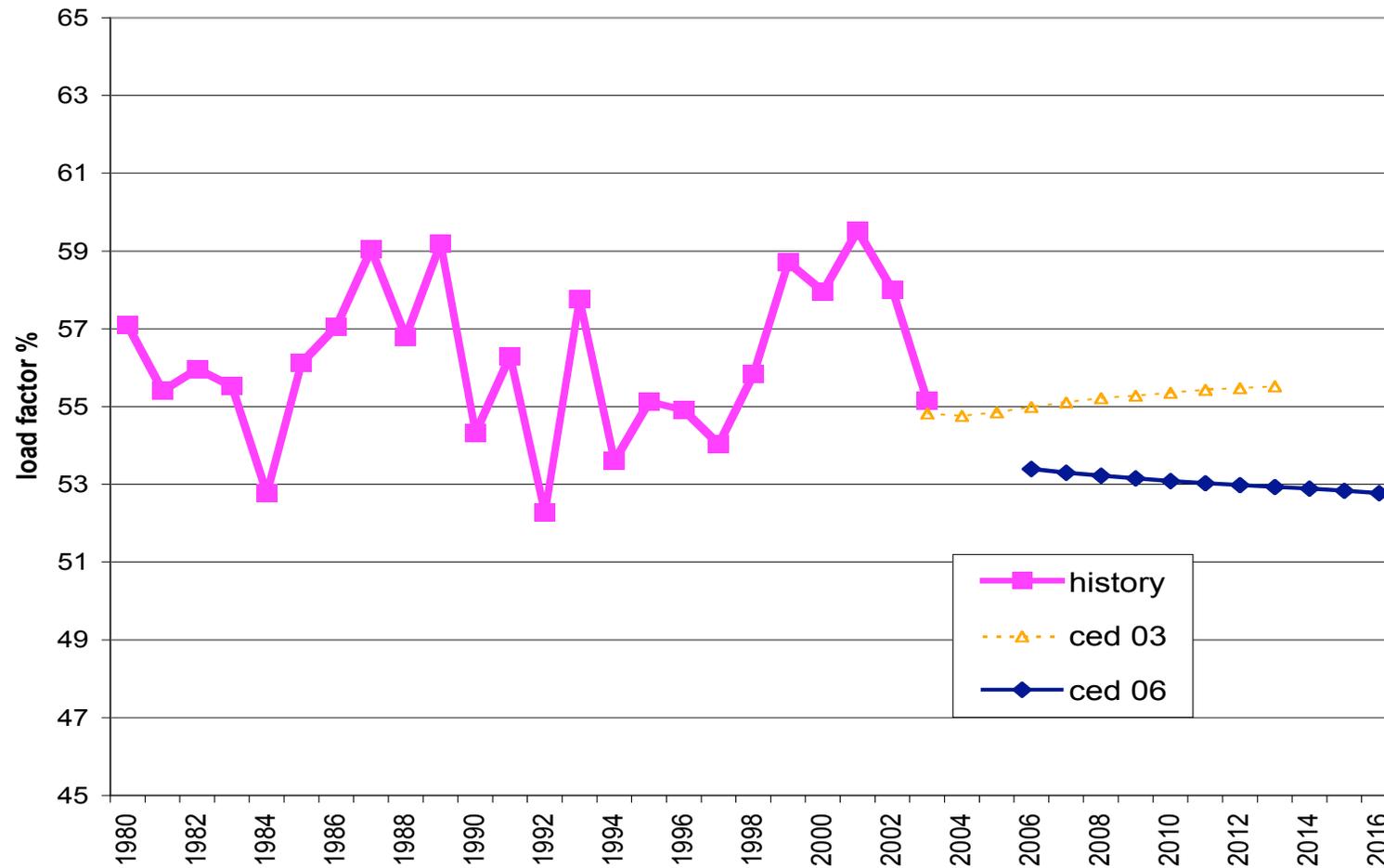
SCE per Capita Consumption



SCE per Capita Peak



SCE Planning Area Load Factor



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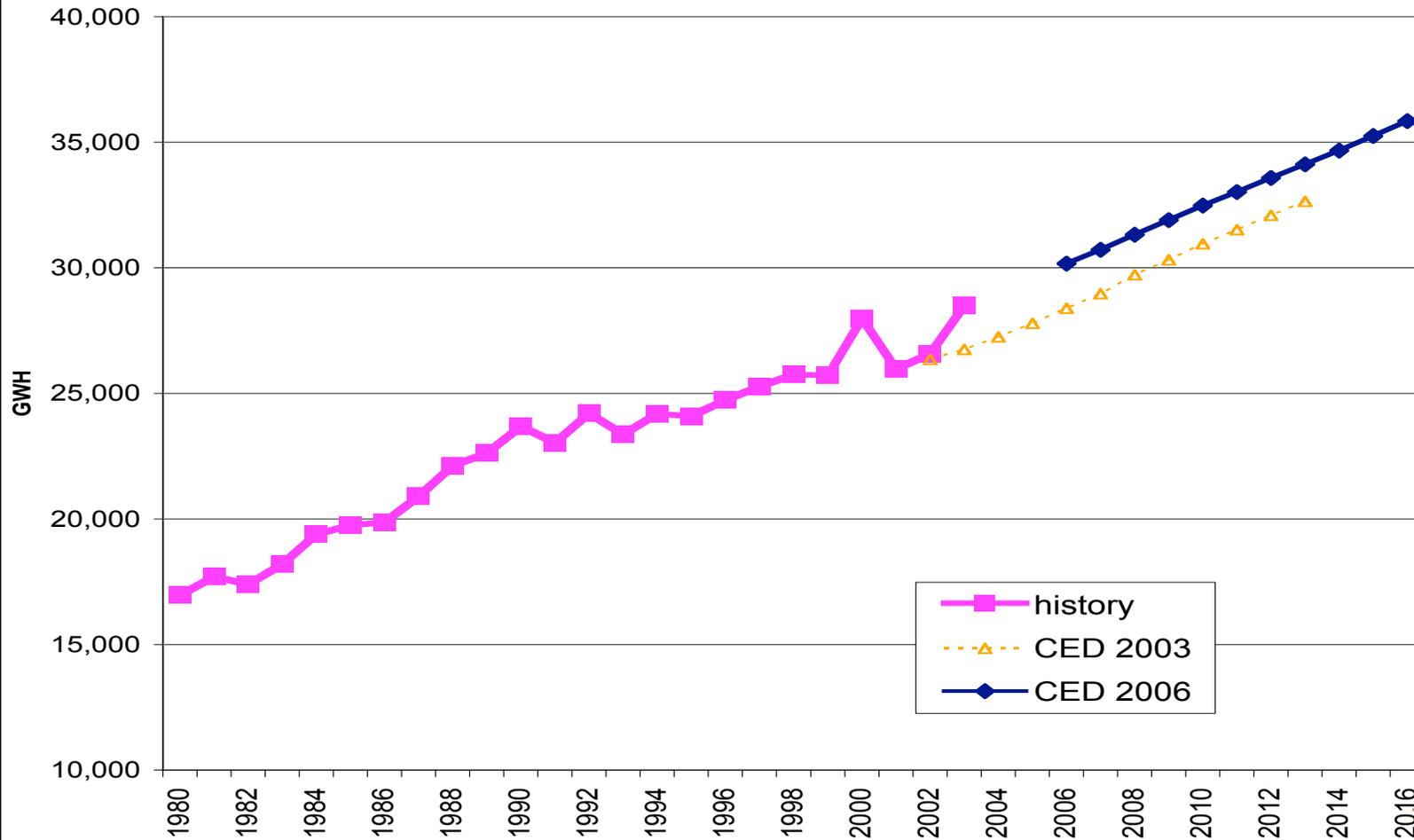


Residential

- **2006 residential forecasts are higher due to higher initial starting points**
- **2006 forecasted growth is similar to 2003**
- **Lower population and higher persons per household = slightly lower household forecast**
- **Regional specific economic forecast creates higher short term household income**



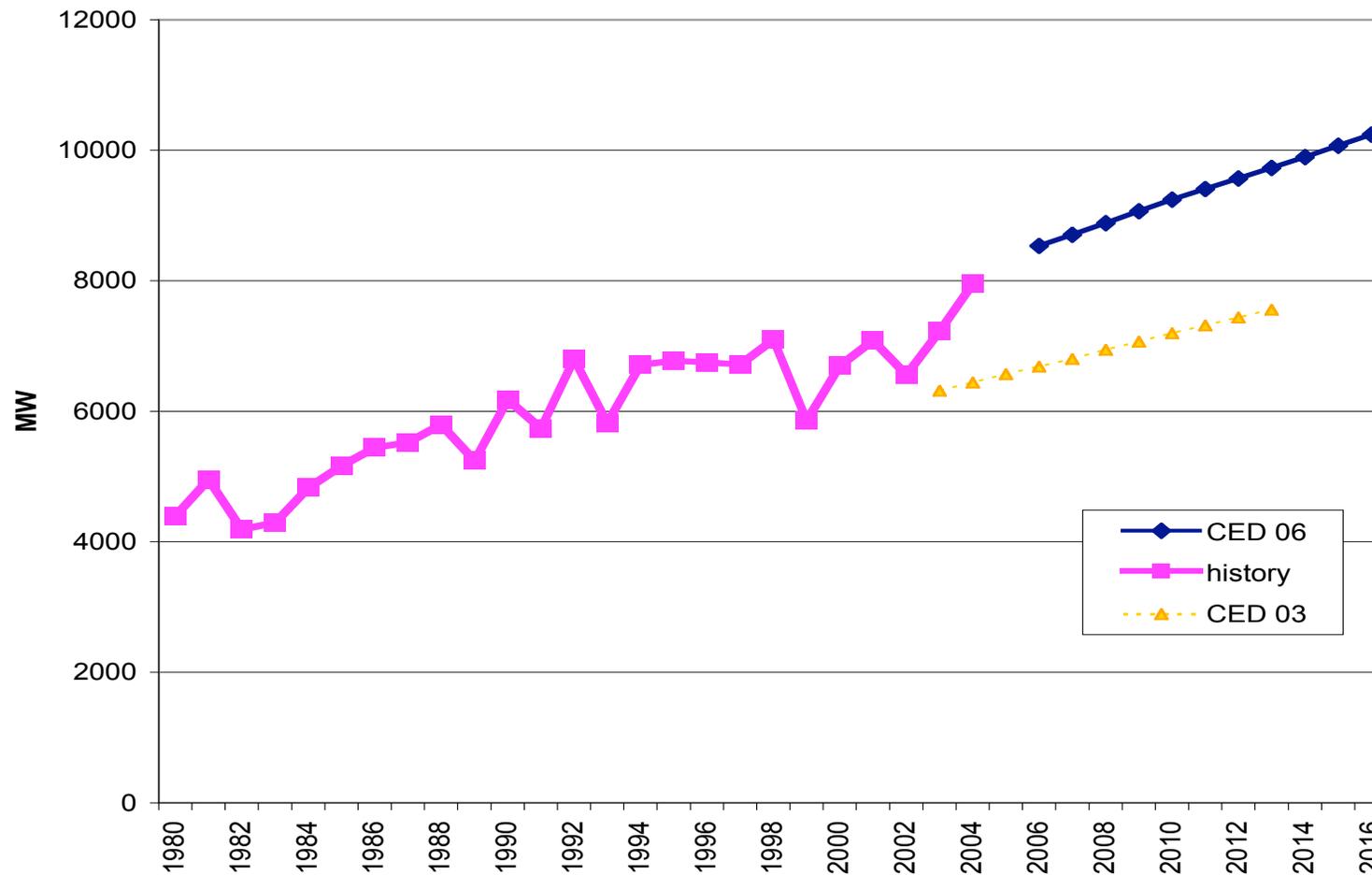
SCE Planning Area Residential Consumption



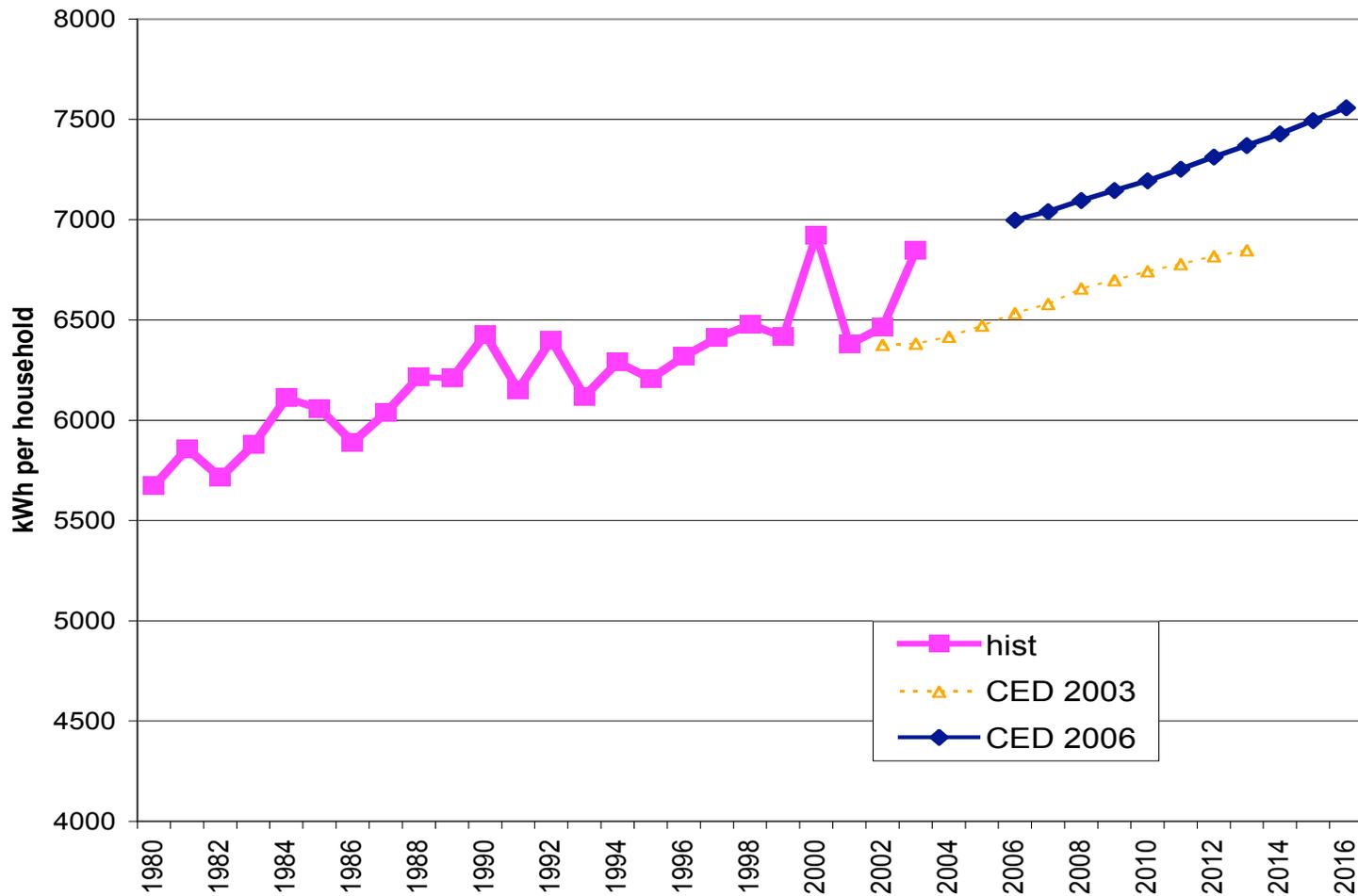
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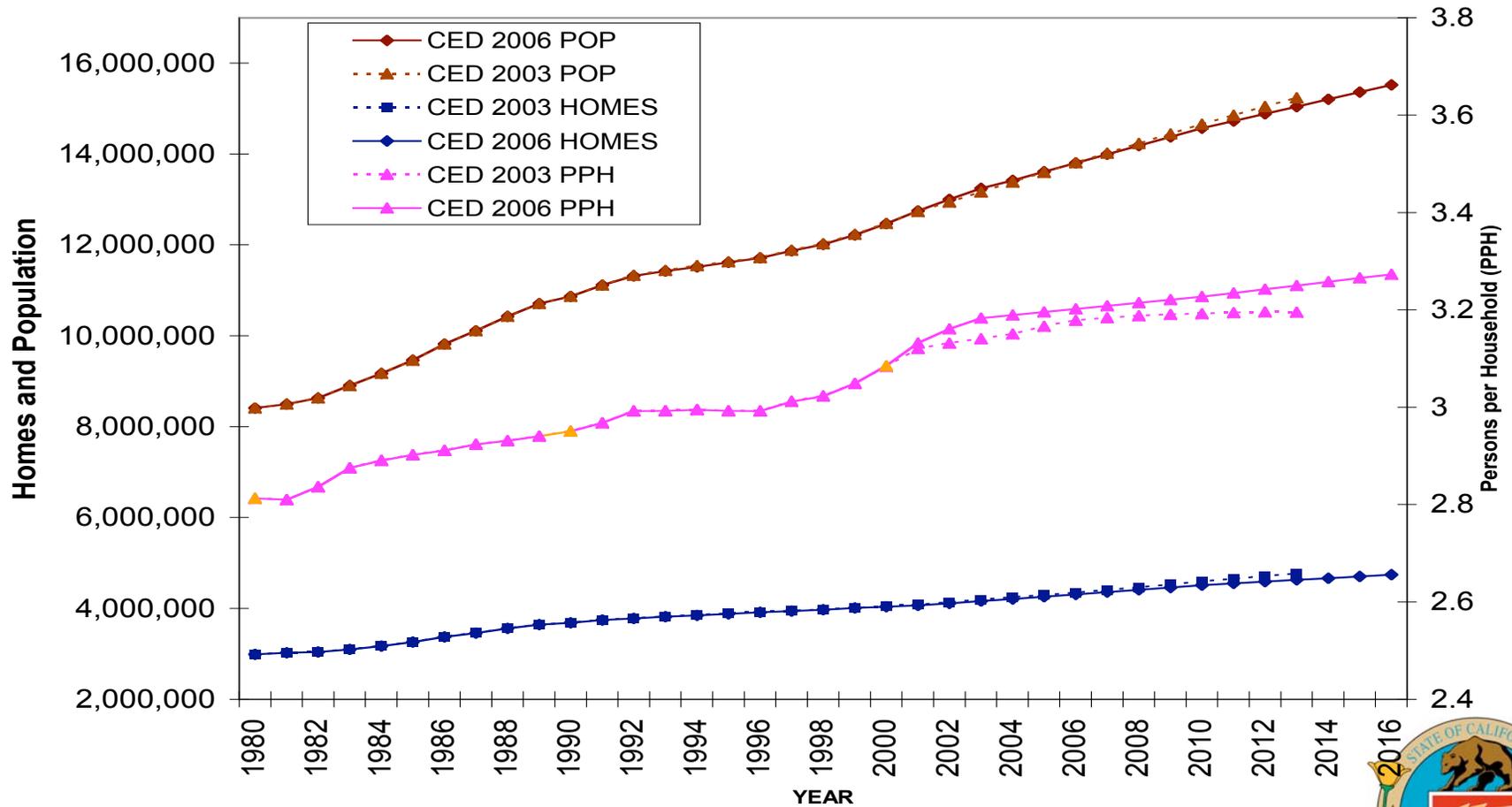
SCE Planning Area Residential Peak



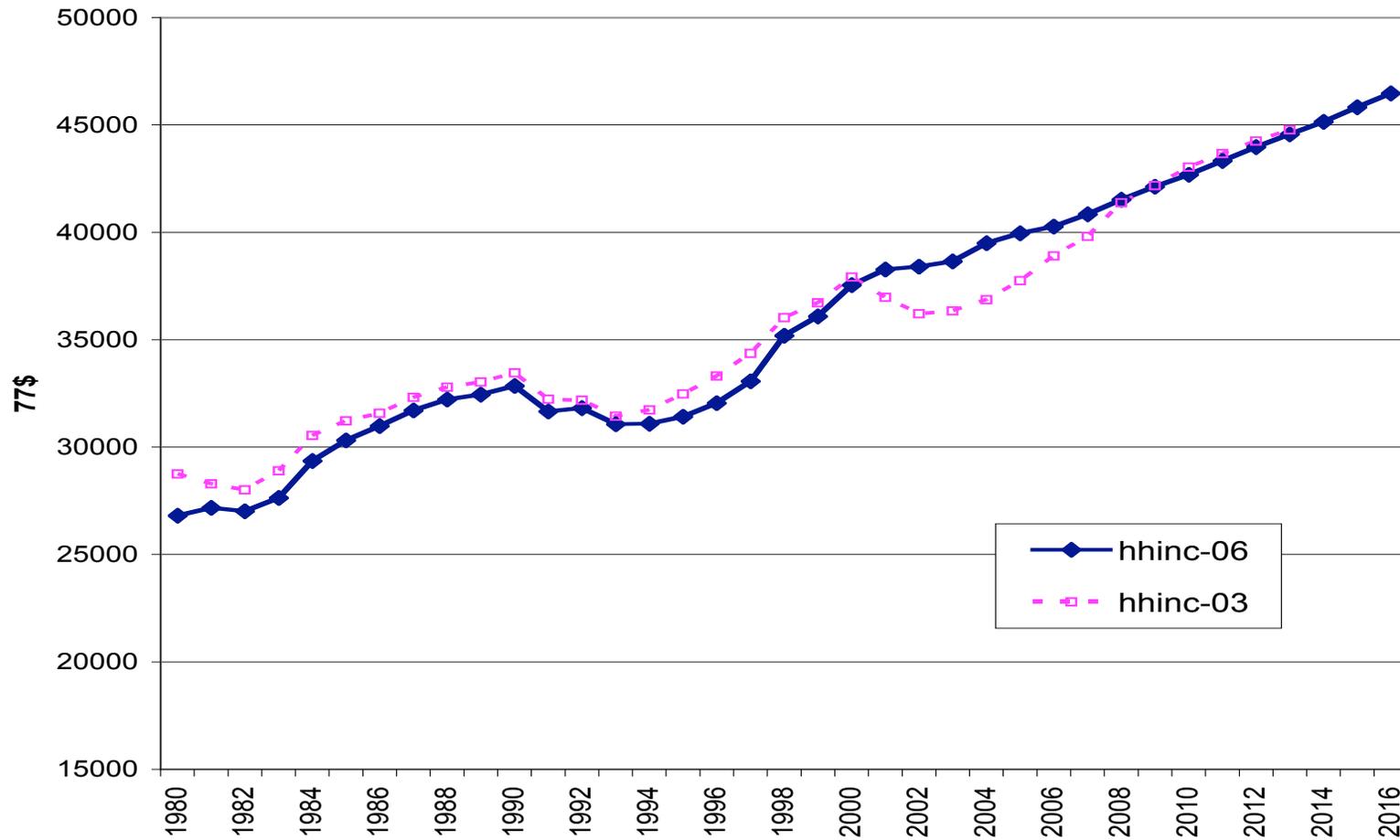
SCE Planning Area Use per Household



SCE Planning Area Demographic Inputs



SCE Planning Area Household Income

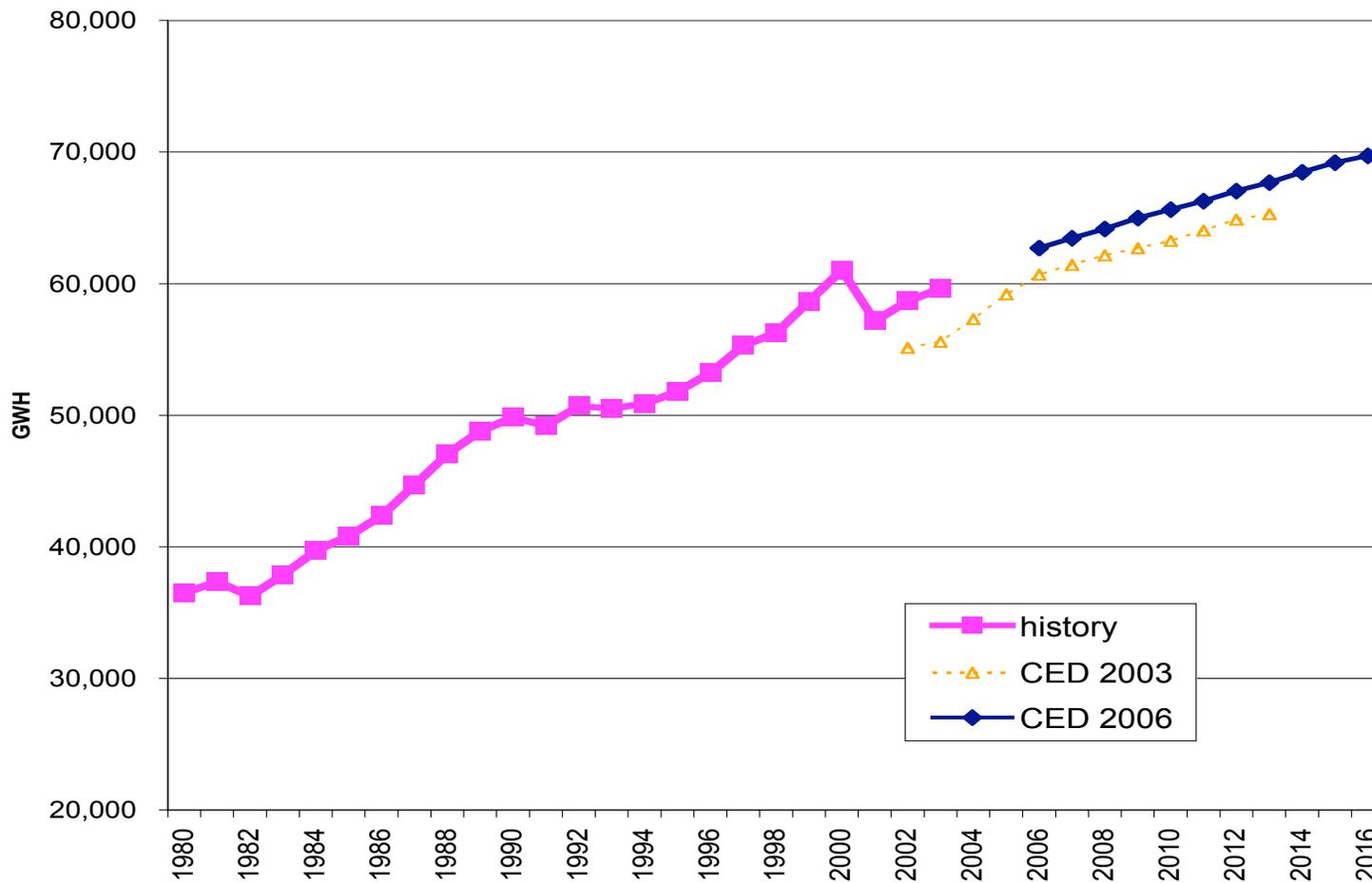


Non-Residential Sectors

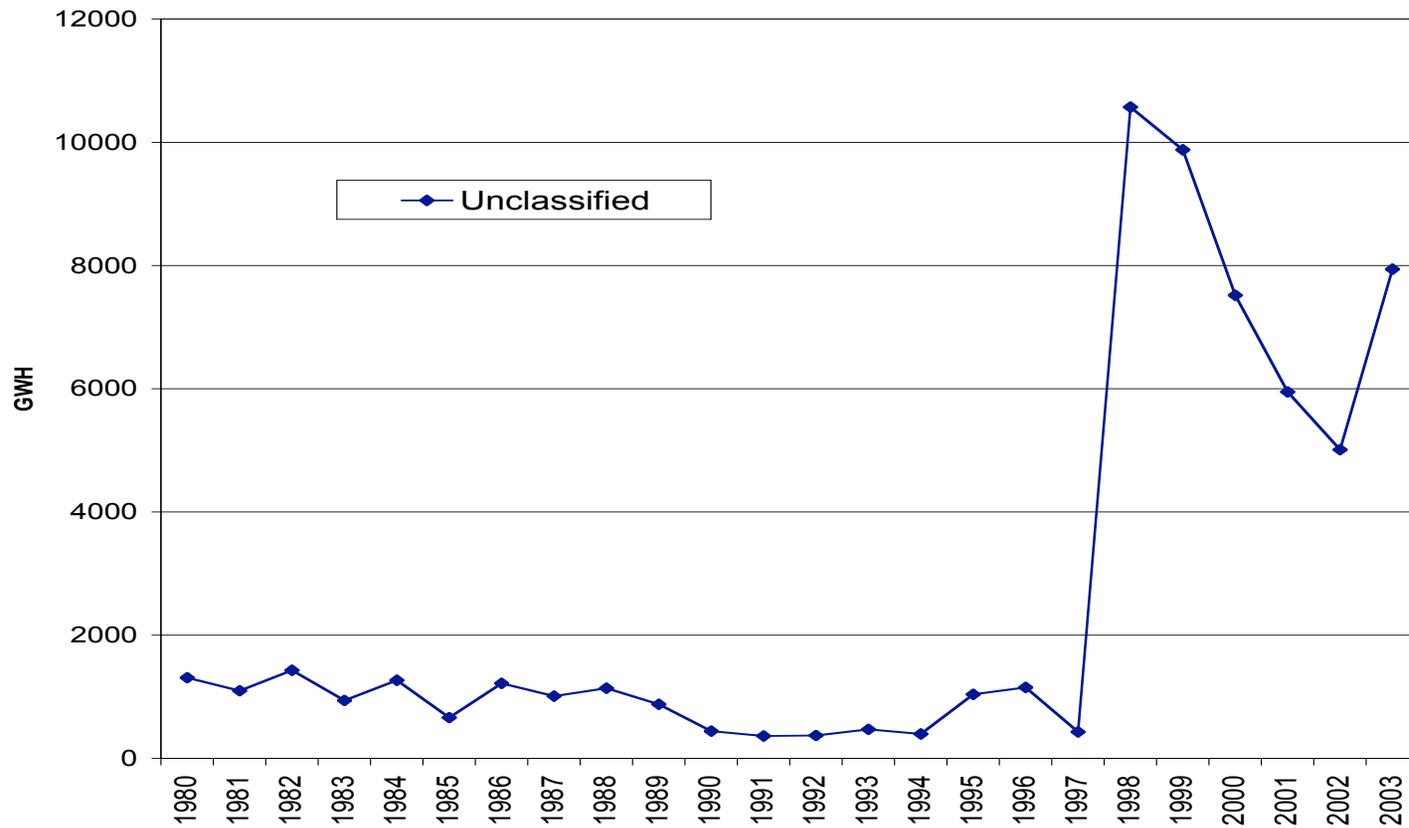
- **Combined non-residential is higher because of initial starting value**
- **Large recent increase in unclassified consumption causes some sector differences**



SCE Planning Area Non-residential Consumption



SCE Planning Area Unclassified Consumption

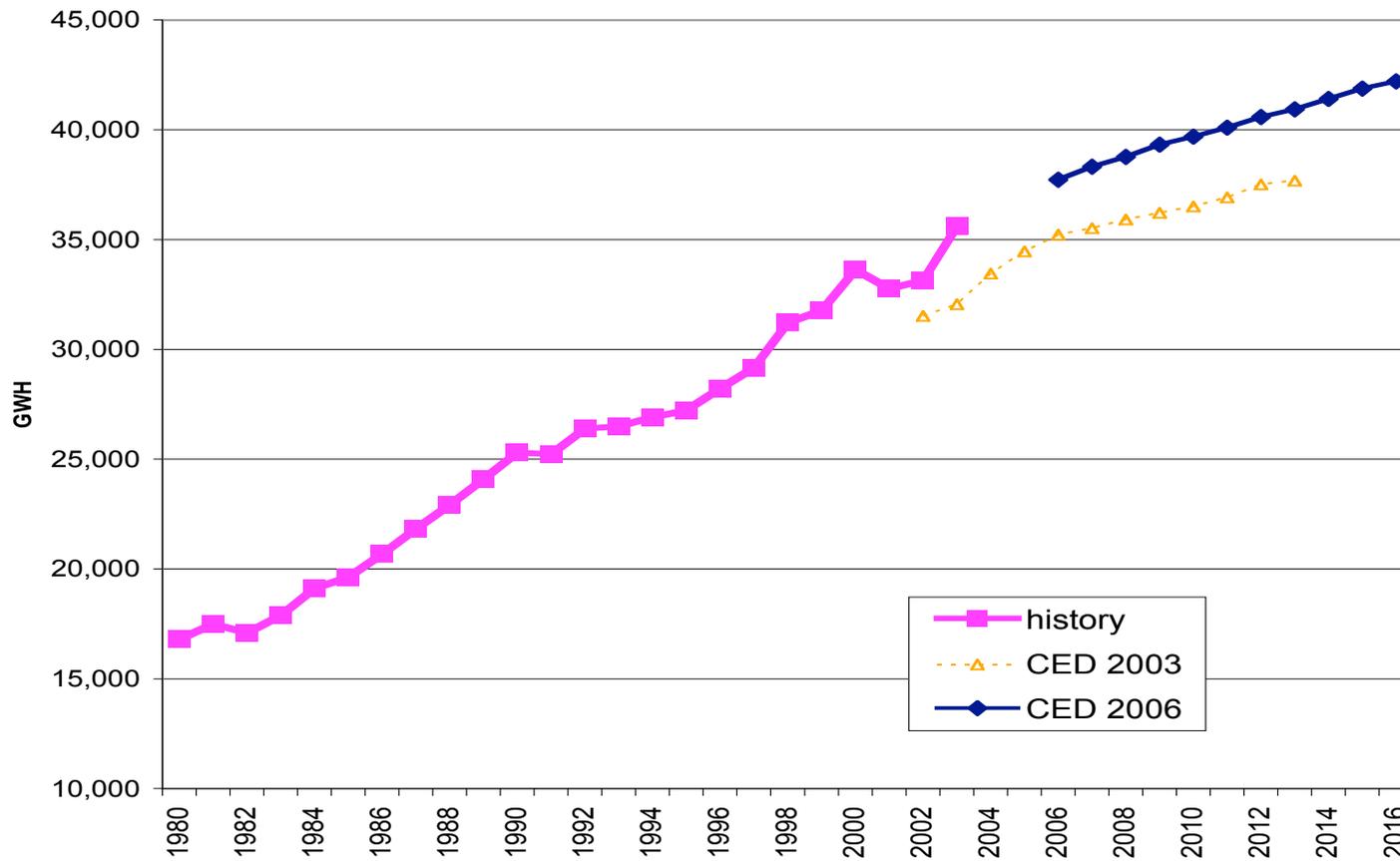


Commercial Building Sector

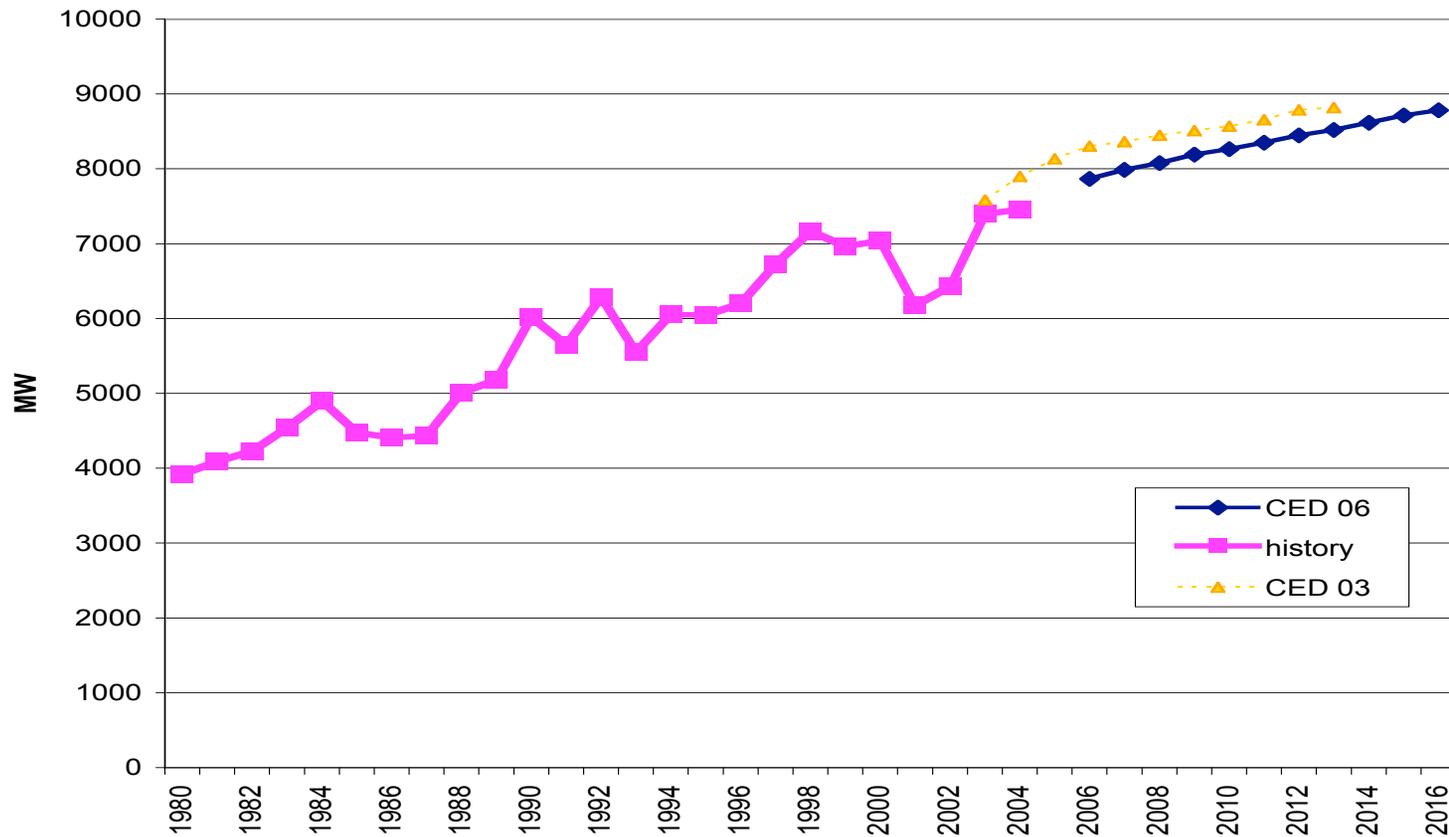
- **Commercial building forecast differences are due to differences in initial starting point**
- **Forecast growth rates are similar**
- **Higher commercial floorspace and lower use per sq. ft. yield similar forecast**
- **Other non-residential sector forecast growth rates are relatively unchanged**



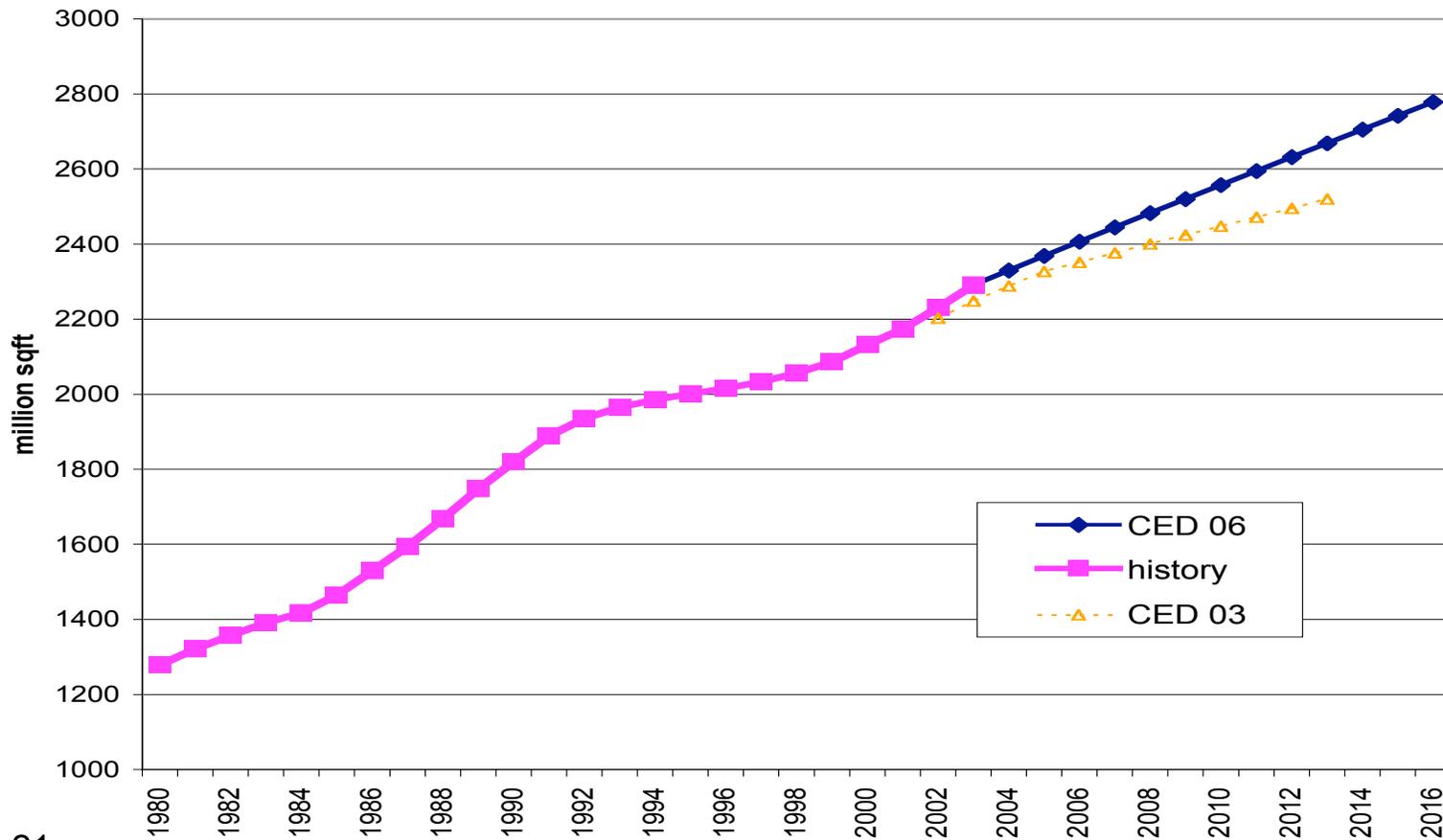
SCE Planning Area Commercial Building Consumption



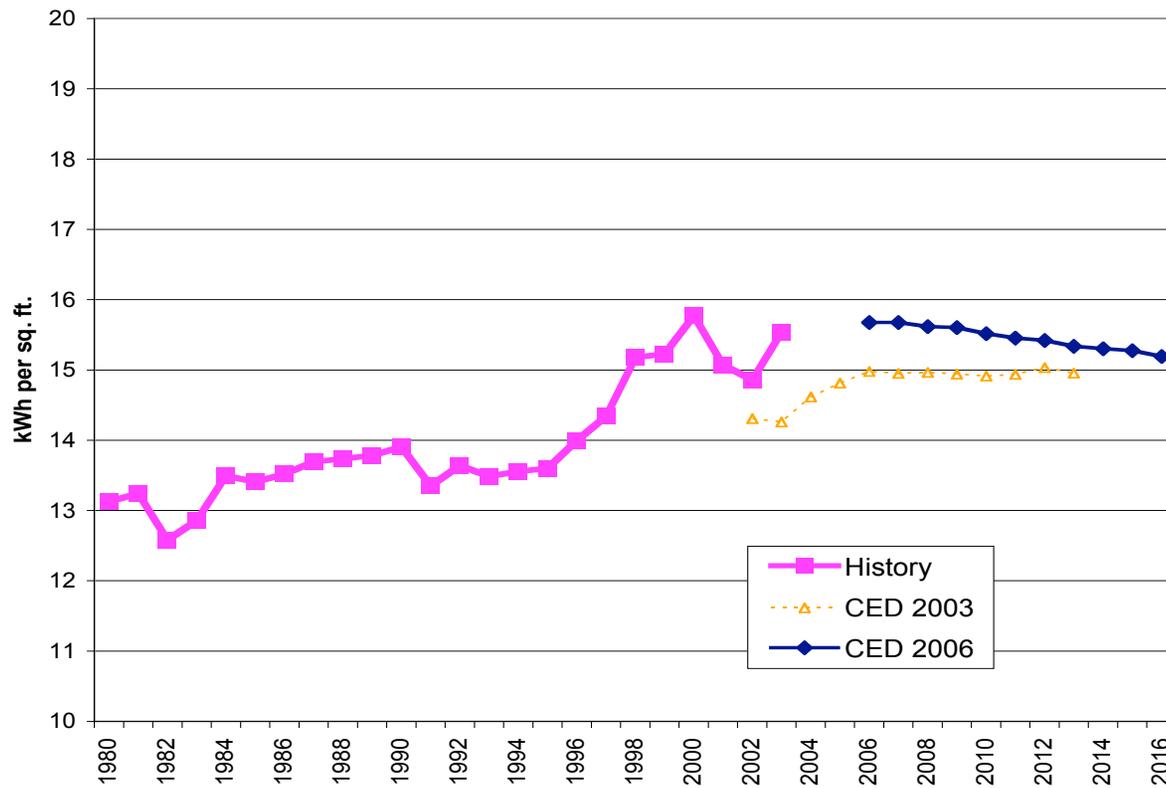
SCE Planning Area Commercial Building Peak



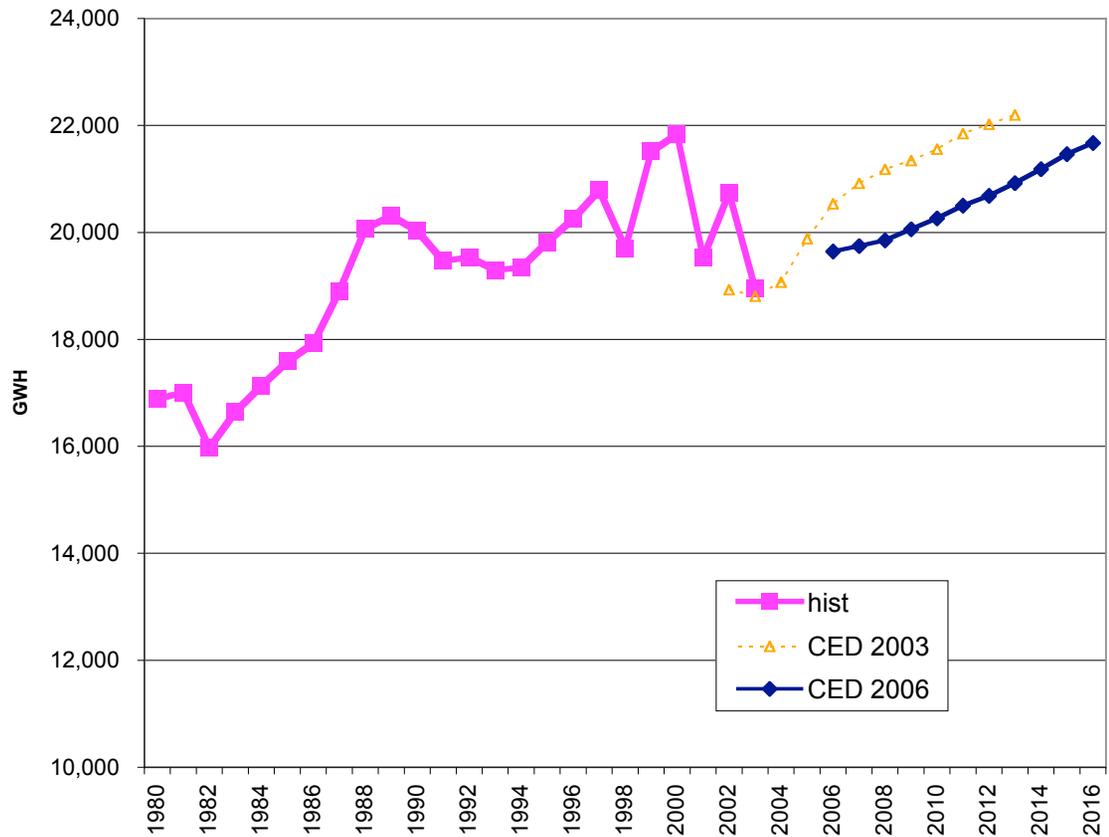
SCE Planning Area Commercial Floorspace



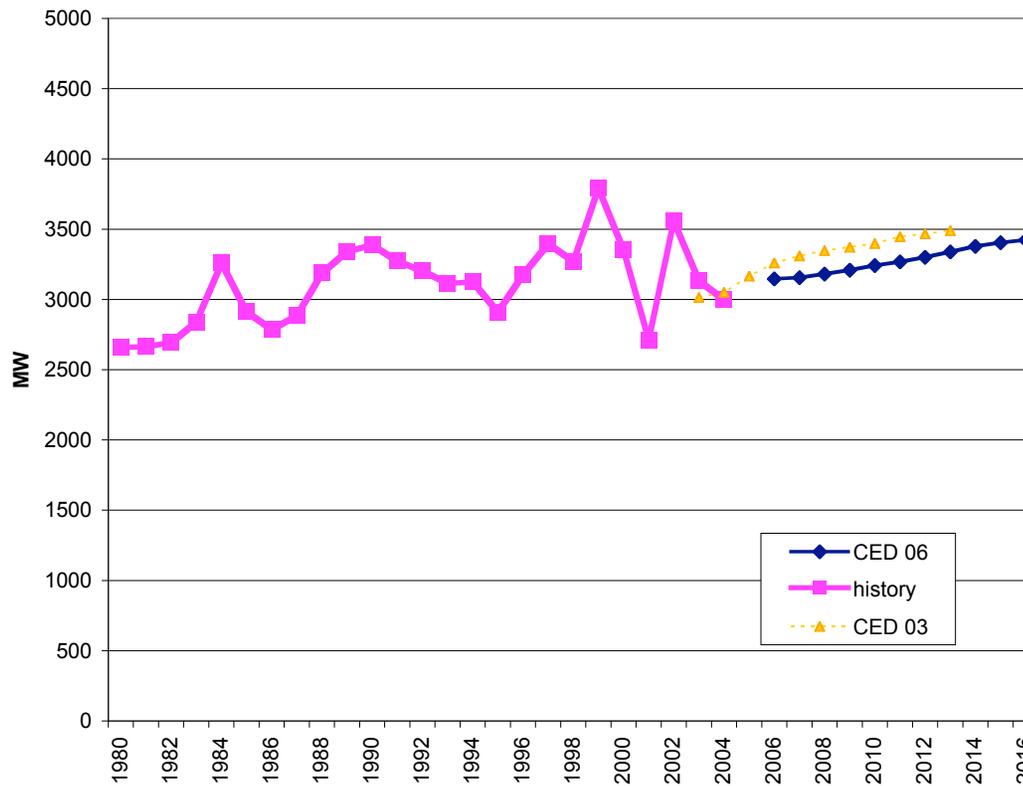
SCE Planning Area Commercial kWh/sq.ft.



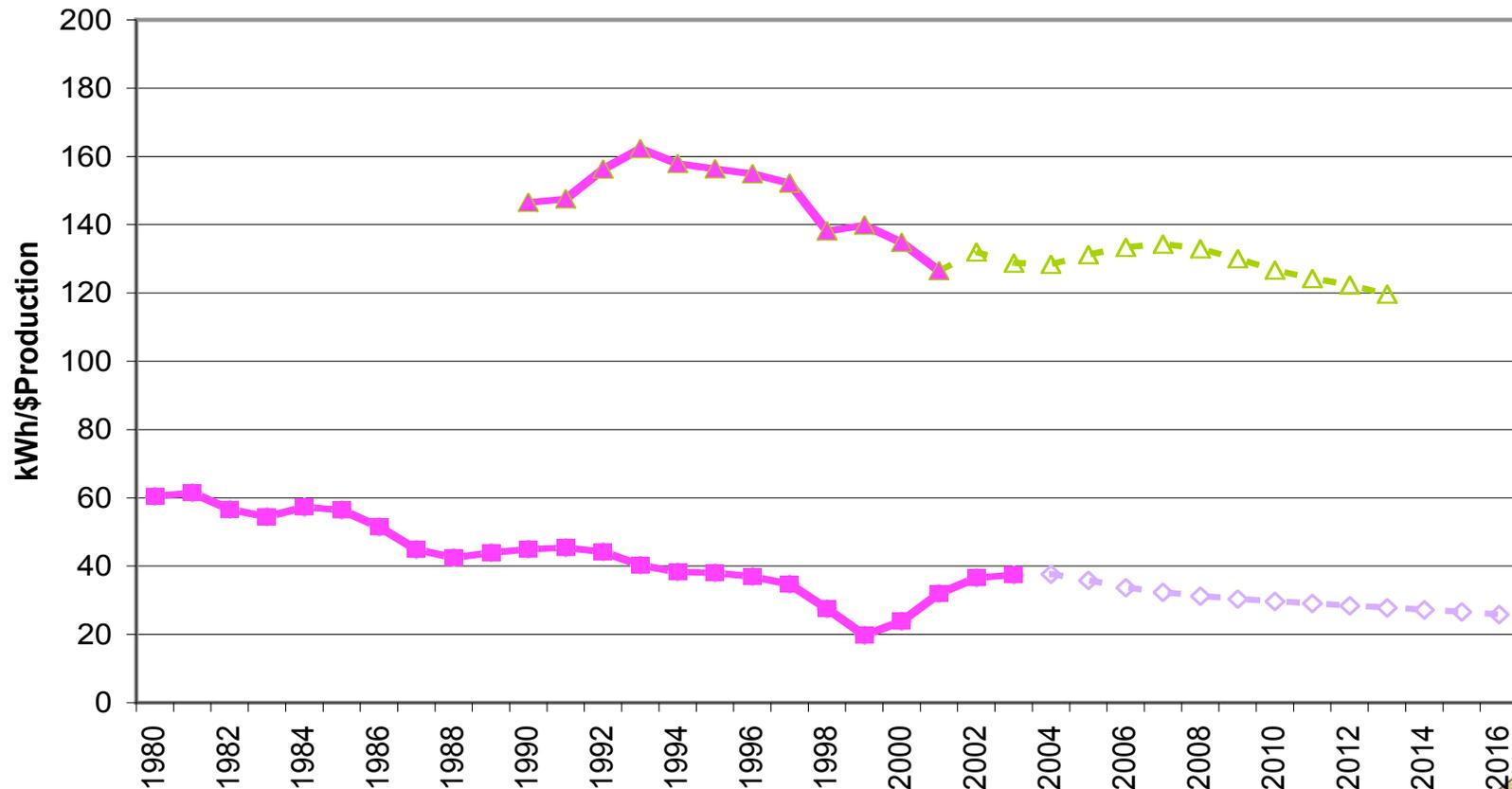
SCE Planning Area Industrial Consumption



SCE Planning Area Industrial Peak



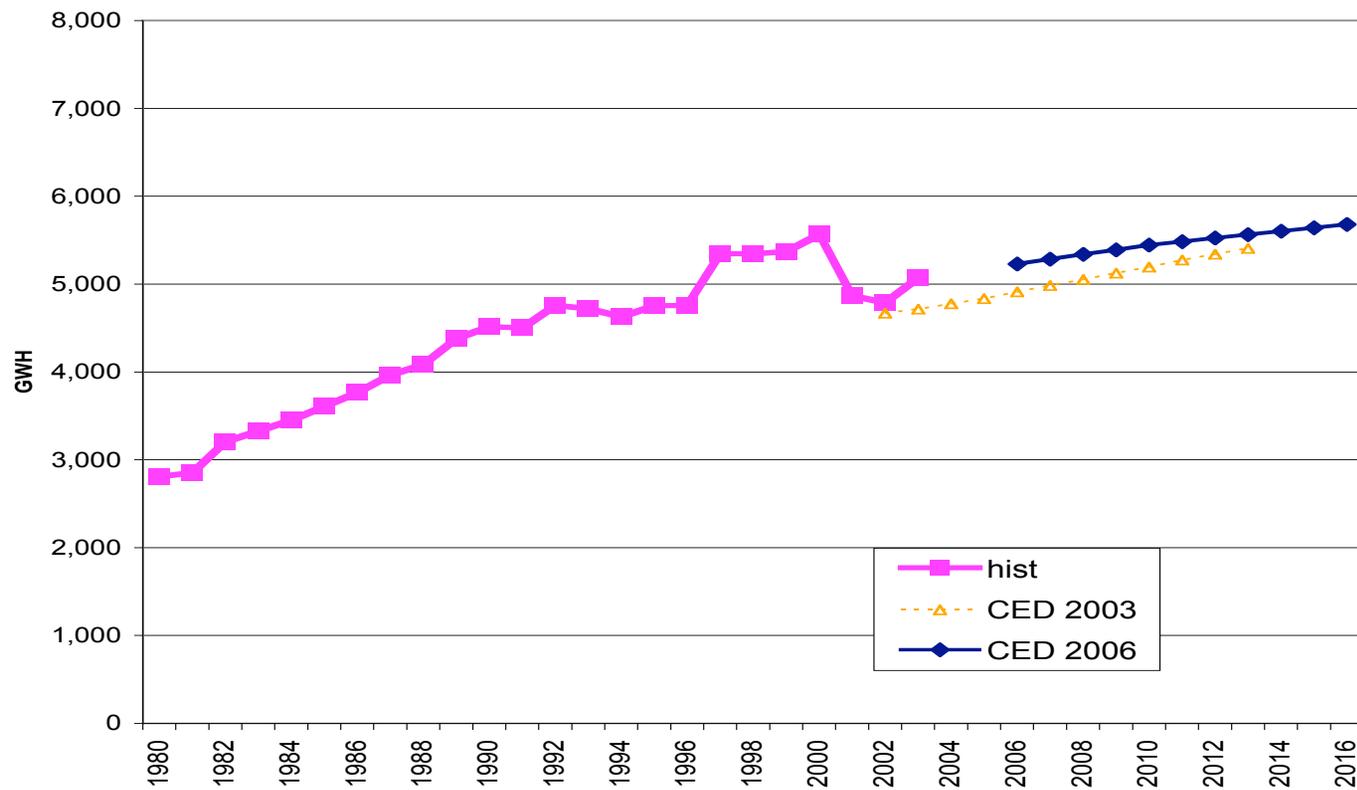
SCE Planning Area Industrial Use per Production Unit



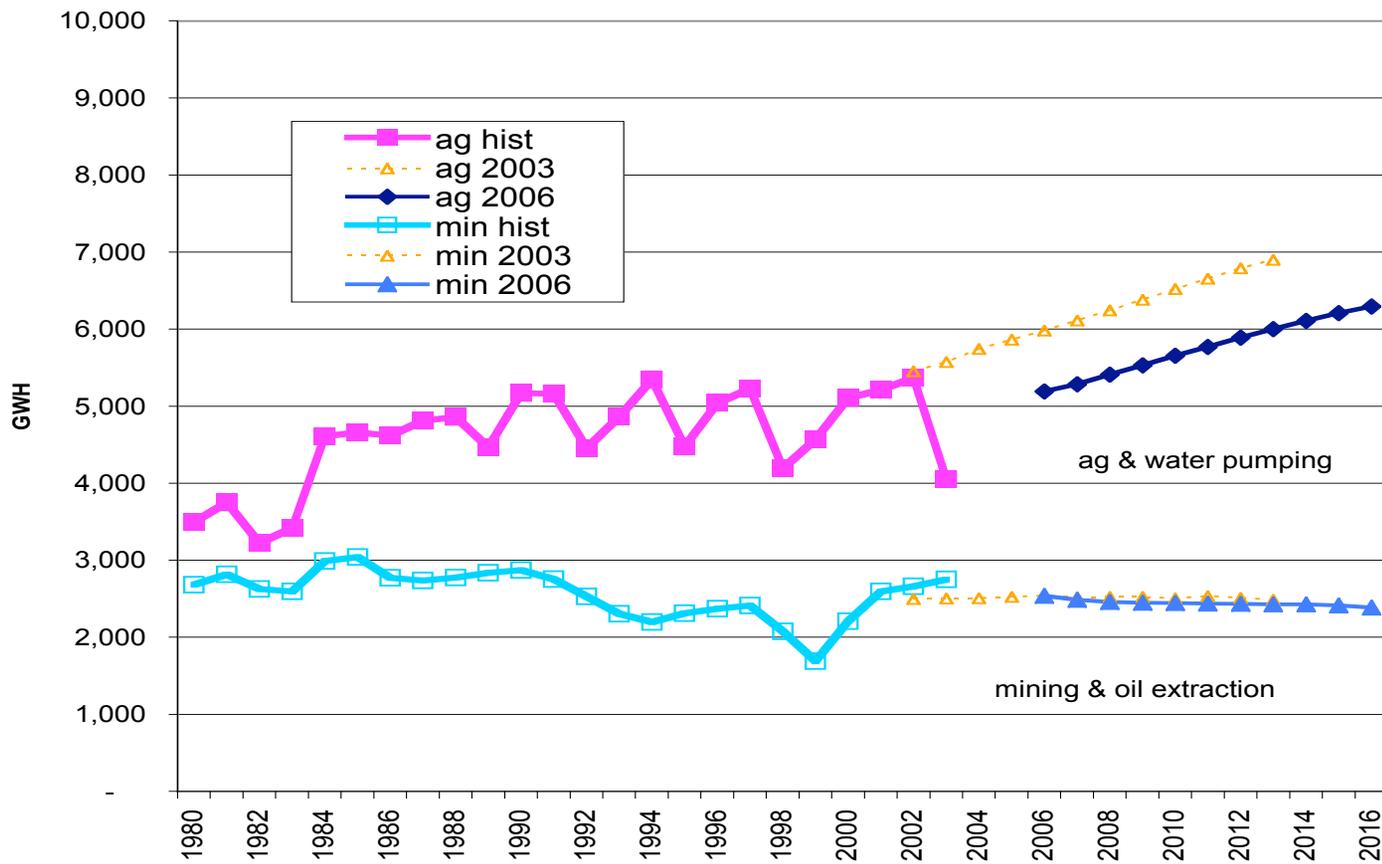
- ◇— CED 2006 Industrial kwh/Value Added
- CED 2006 History
- △— CED 2003 Industrial kwh/Value of Shipments
- ▲— CED 2003 History



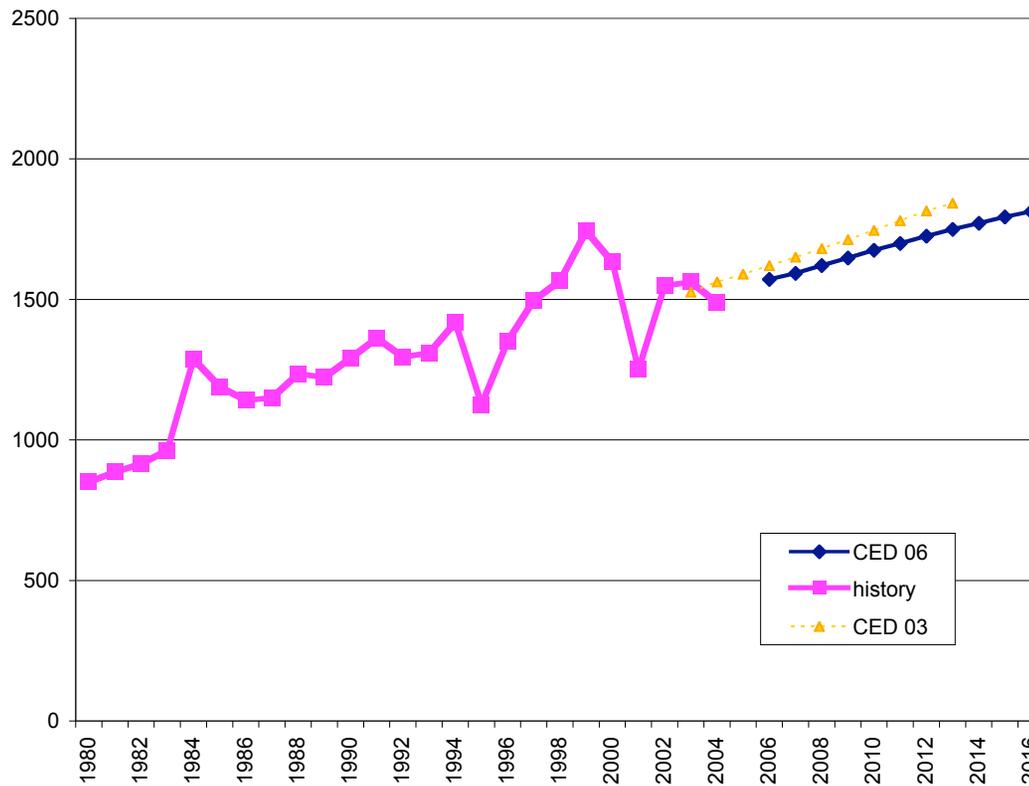
SCE Planning Area TCU Sector Consumption



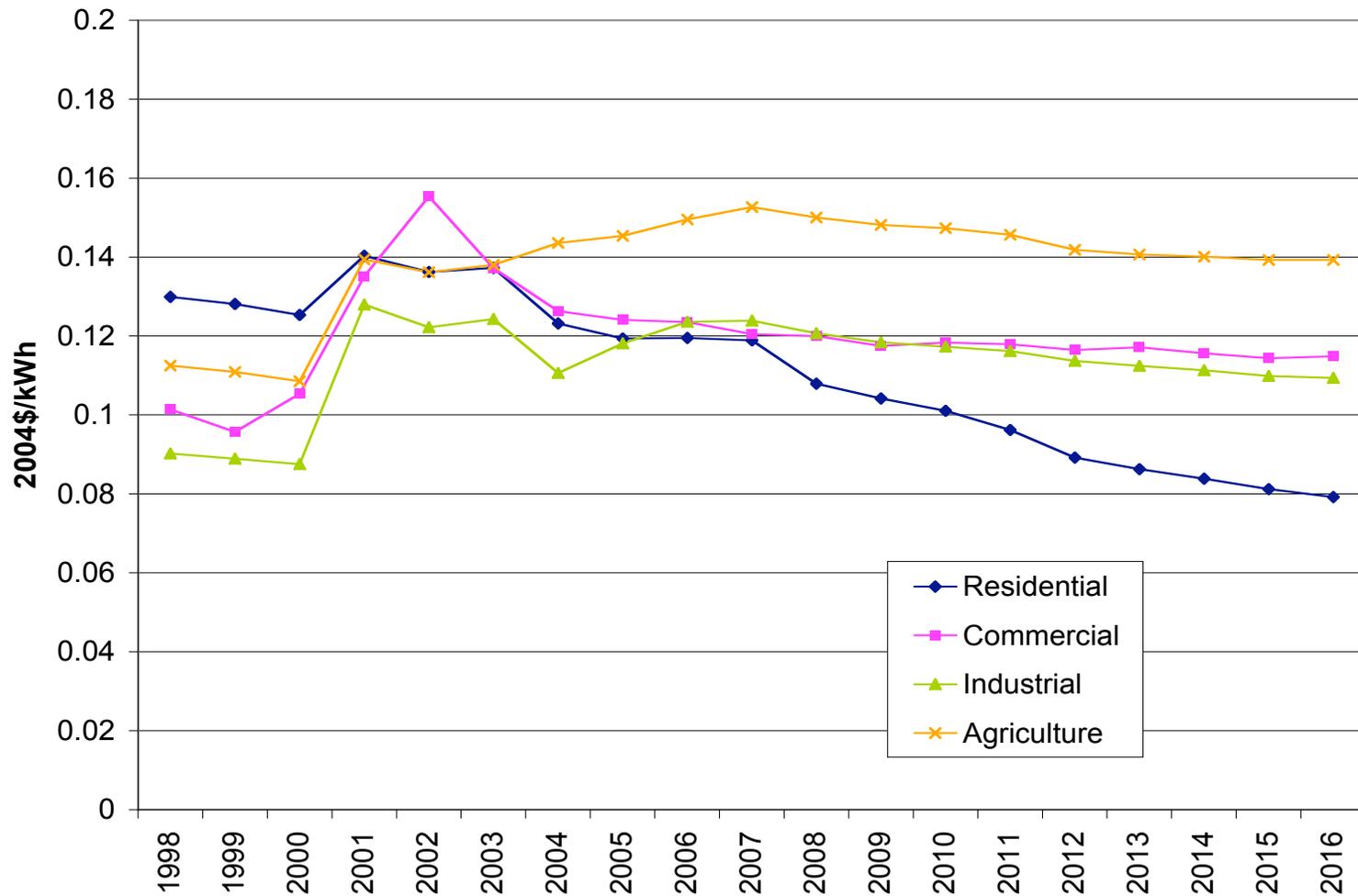
SCE Agriculture and Mining Consumption



SCE Planning Area Other Sectors Peak



SCE Planning Area Prices



SCE Planning Area Forecast Comparisons

- **Aggregated forecasts are within 2 percent by 2010, with aggregated SCE forecasts higher than staff's**
- **Aggregated forecasts grow at a much faster rate than staff after 2010**
- **Aggregated energy forecast is over 9.5 percent higher by 2016**
- **Peak forecast is over 6 percent higher**



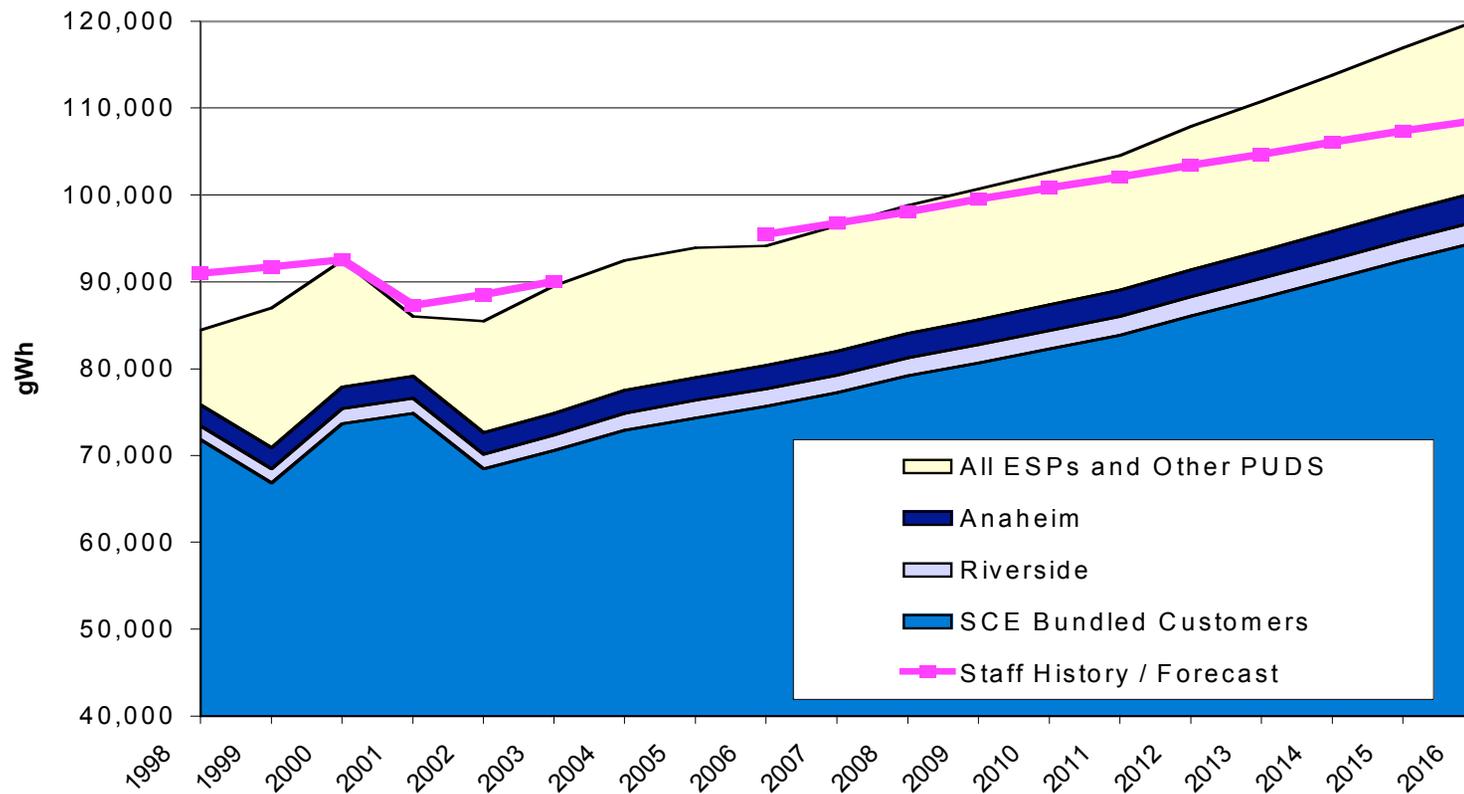
SCE Planning Area Forecast Comparisons

	Consumption (GWH)			Peak (MW)		
	Aggregated Forecasts	Staff Forecast	% Difference	Aggregated Forecasts	Staff Forecast	% Difference
1990	n/a	78,271		n/a	17,564	
2000	92,469	92,543	0.08%	20,369	19,465	-4.44%
2003	89,534	90,045	0.57%	20,261	19,907	-1.75%
2008	98,837	98,088	-0.76%	22,543	22,468	-0.33%
2010	102,689	100,821	-1.82%	23,419	23,156	-1.12%
2013	110,800	104,670	-5.53%	25,064	24,108	-3.82%
2016	119,984	108,500	-9.57%	26,786	25,066	-6.42%
Annual Average Growth Rates						
1990 -2000	n/a	1.69%		n/a	1.03%	
2000 -2003	-1.07%	-0.91%		-0.18%	0.75%	
2003 -2008	2.00%	1.73%		2.16%	2.45%	
2003 -2016	2.28%	1.44%		2.17%	1.79%	

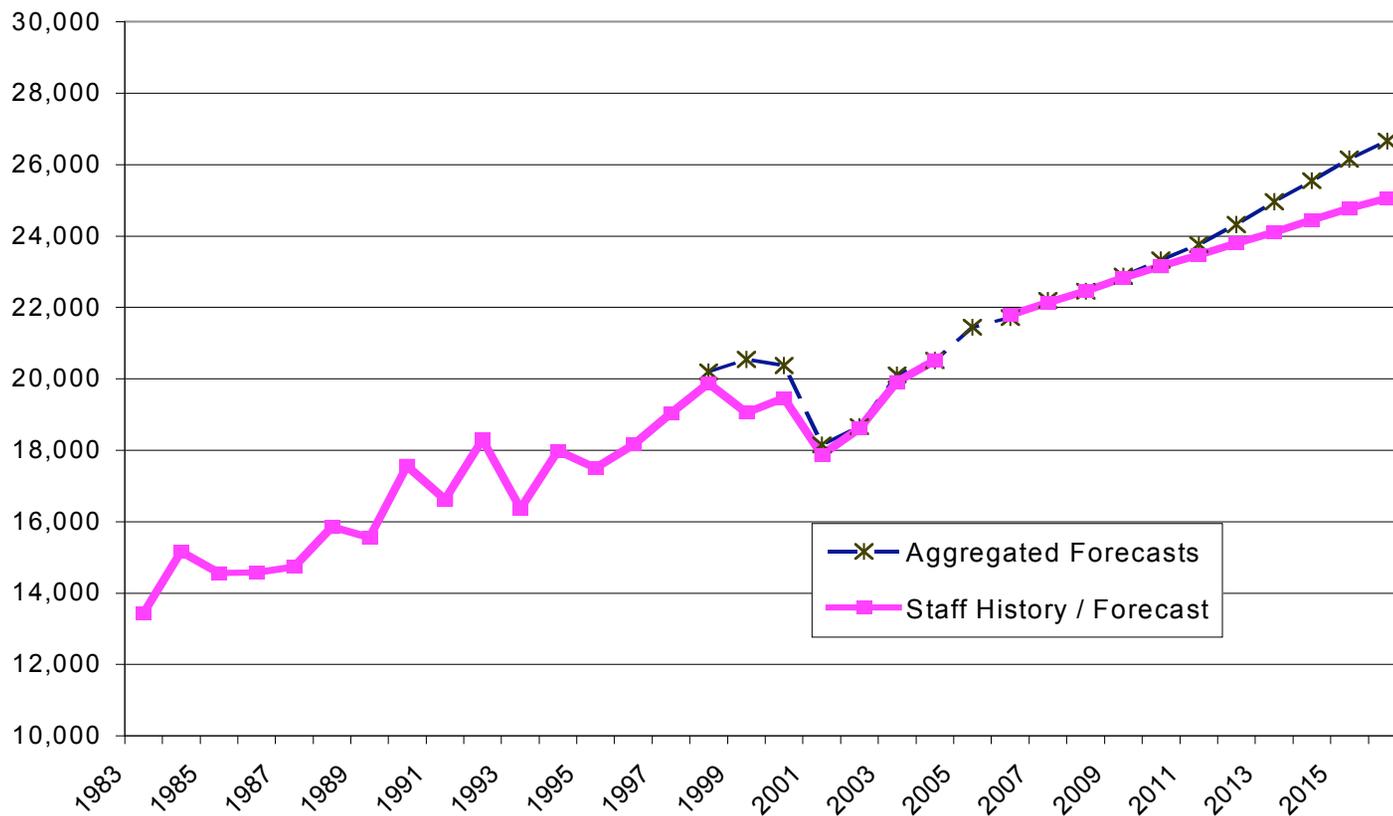
Historic values are shaded



SCE Planning Area Sales Forecast Comparison



SCE Planning Area Peak Forecast Comparison

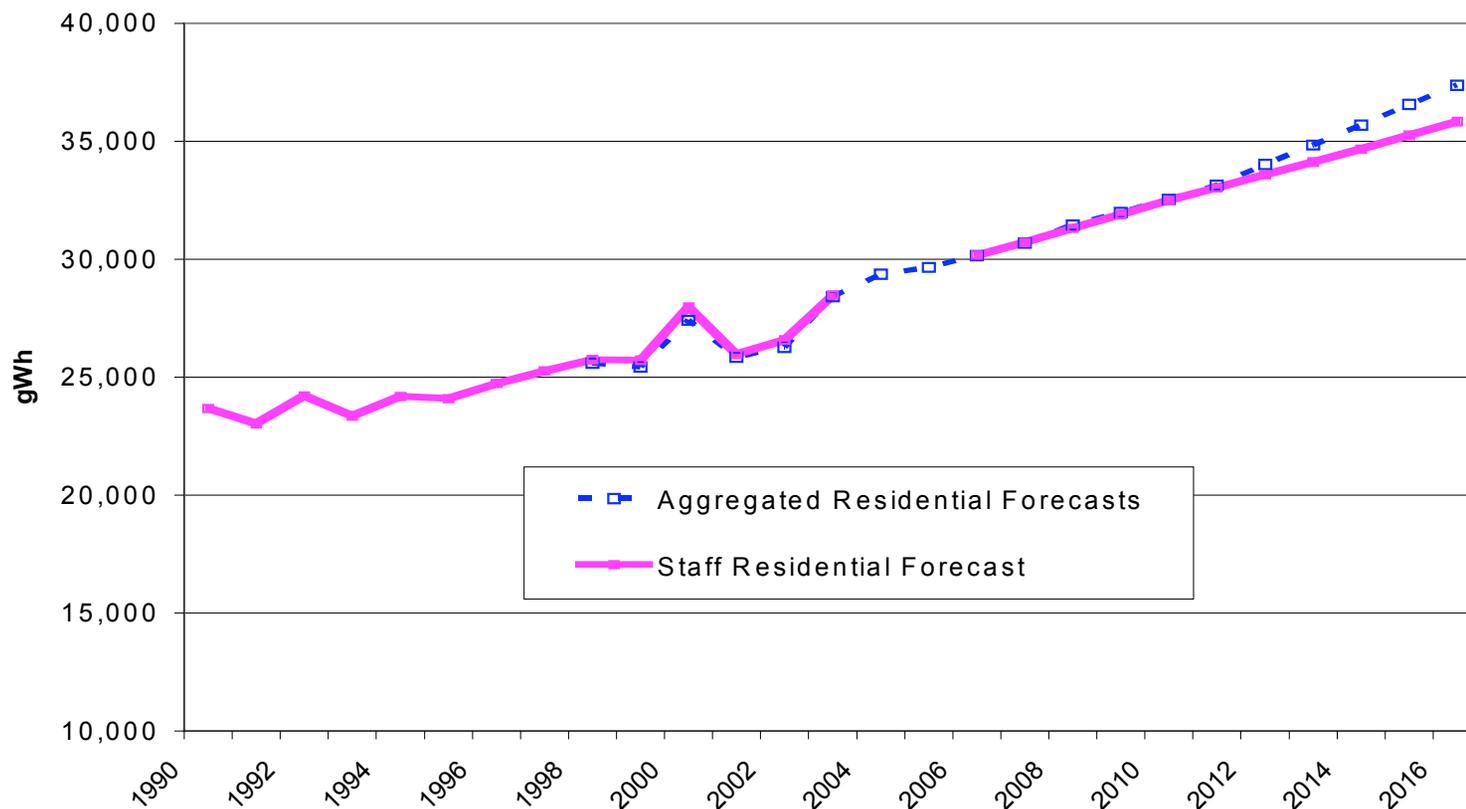


Residential Forecast Comparisons

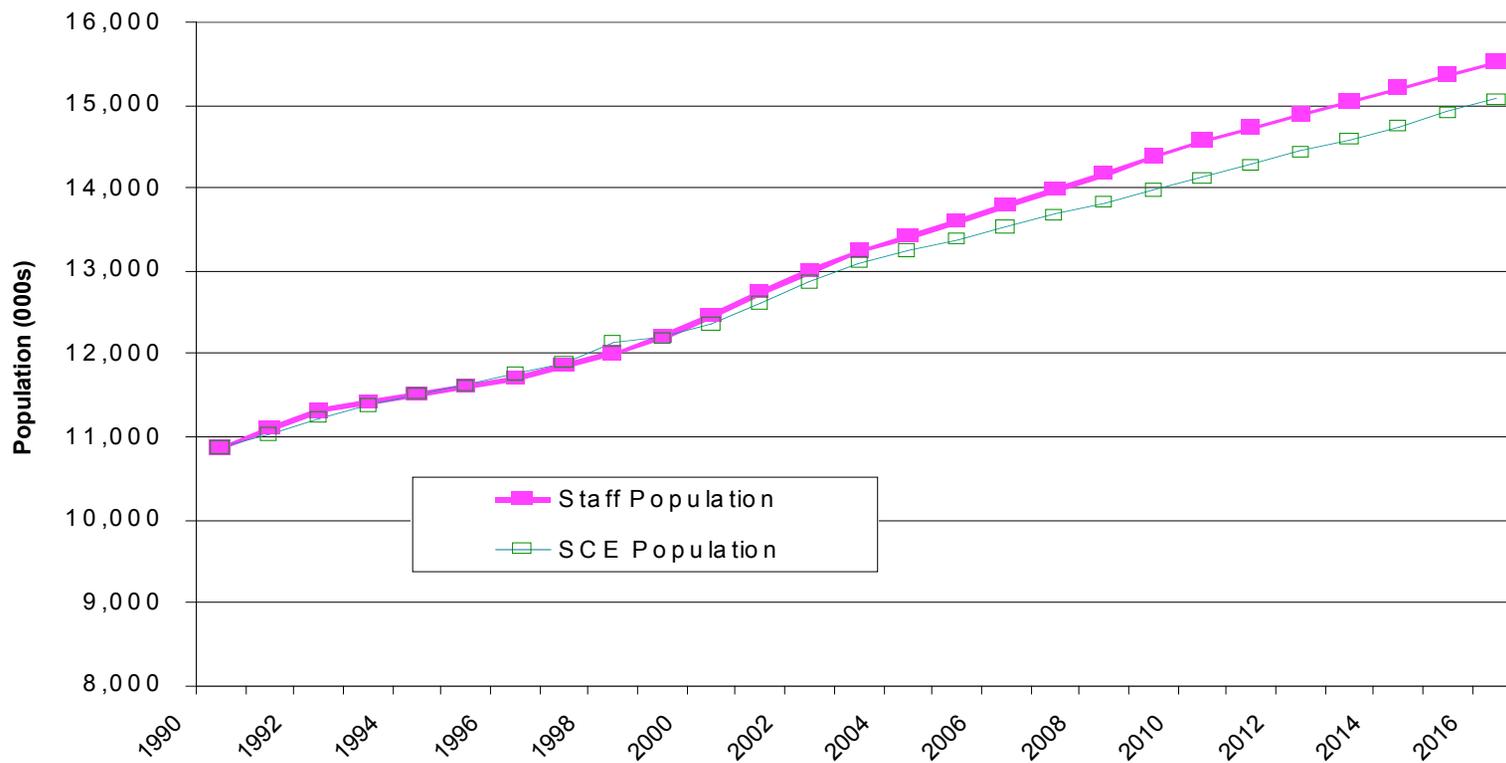
- **Aggregate forecast is higher after 2010**
- **SCE decreasing persons per household produces higher growth in number of households**
- **SCE growth in total and per capita income increases growth in use per household**



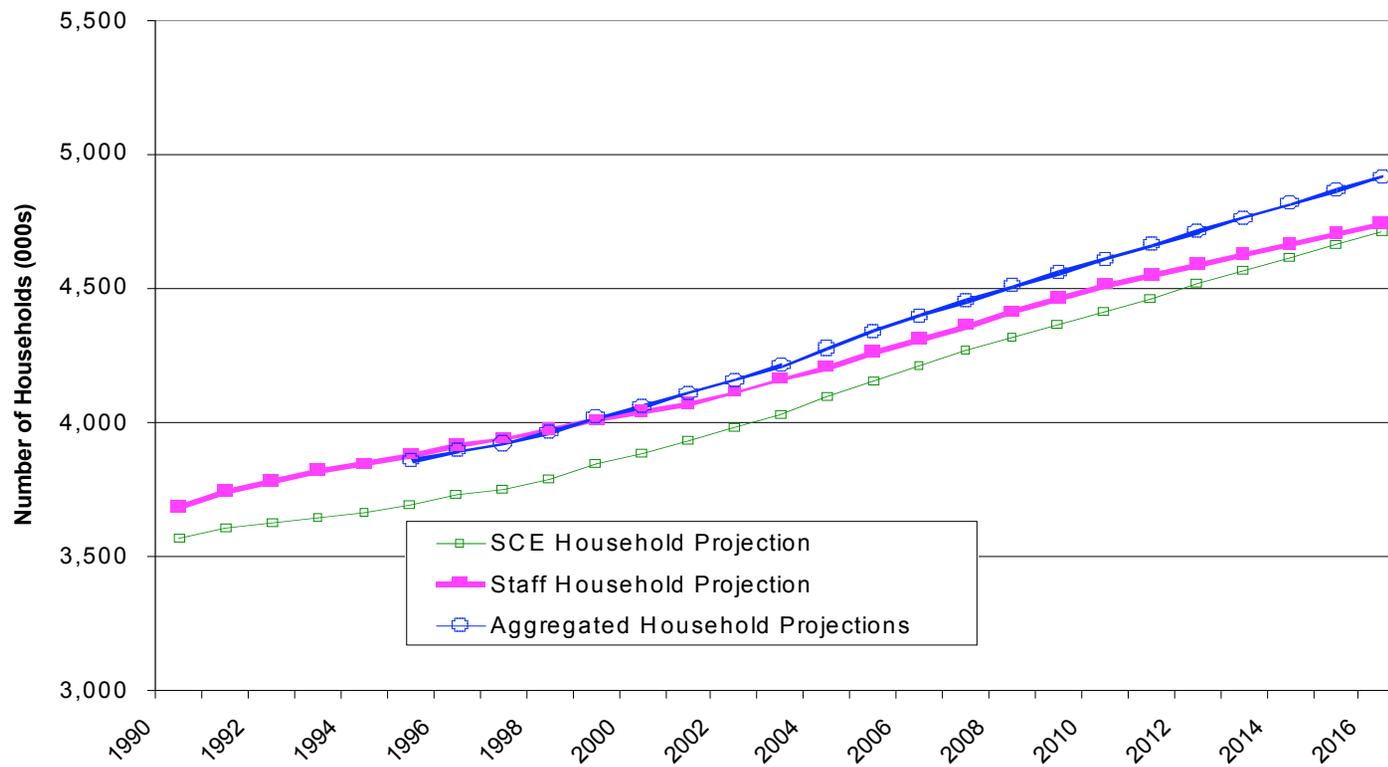
SCE Planning Area Residential Sales Forecasts



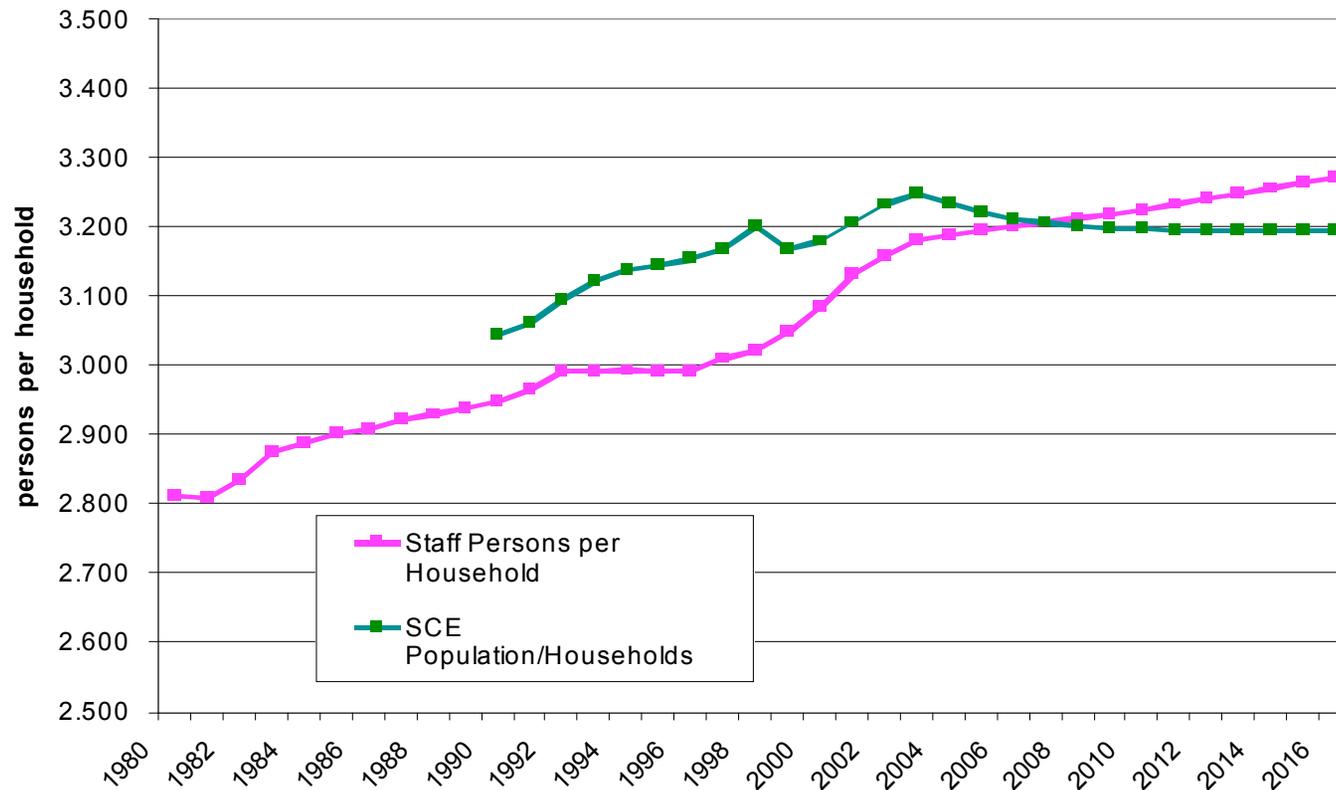
SCE Planning Area Population Forecasts



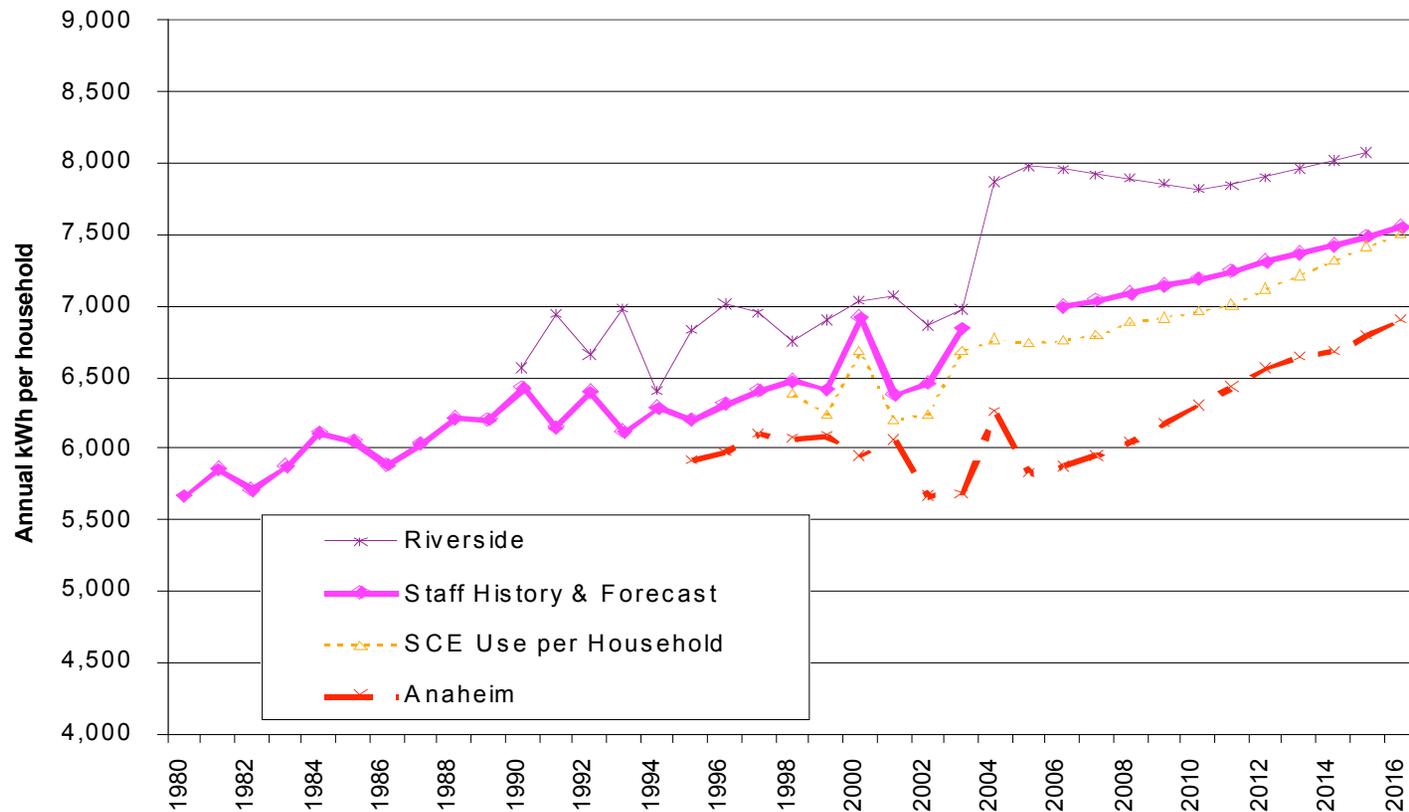
SCE Planning Area Household Projections



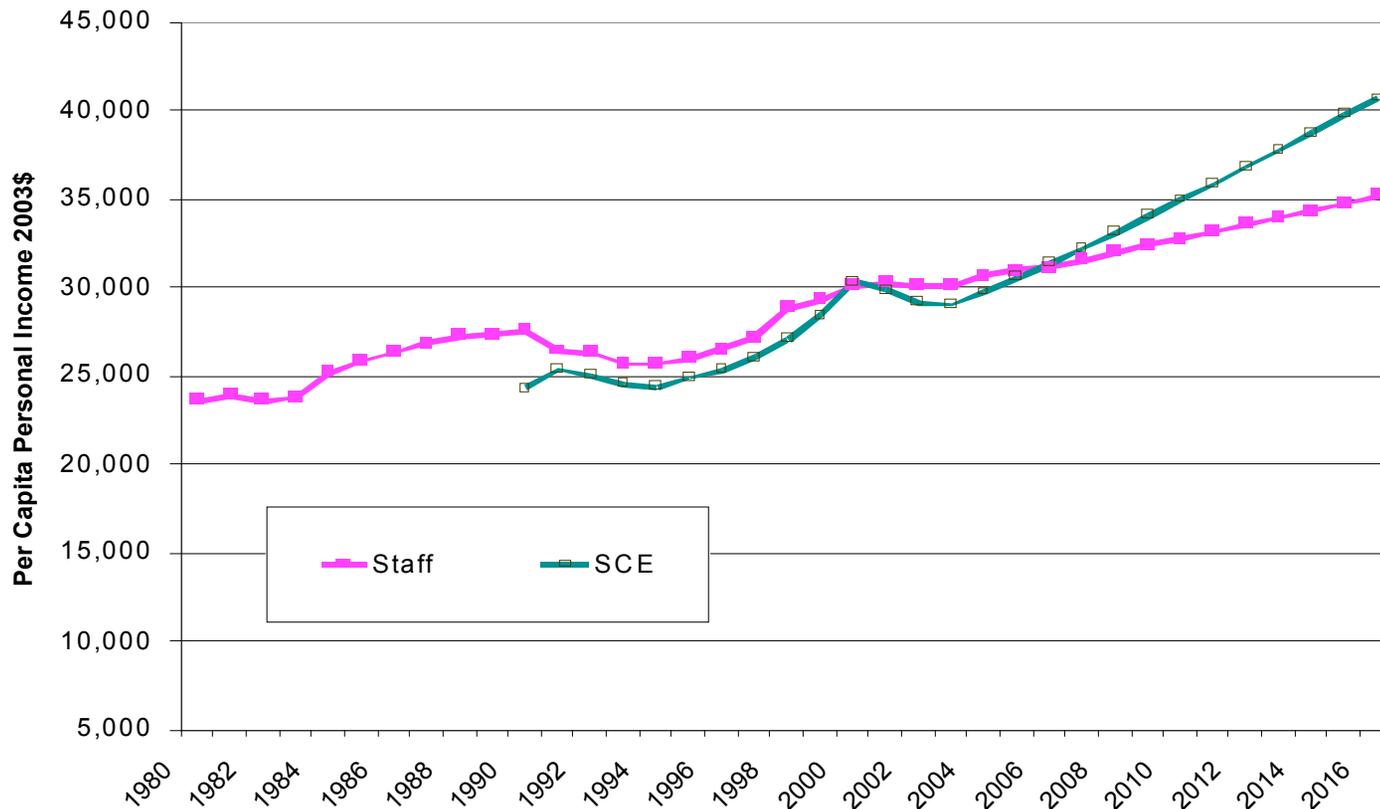
SCE Planning Area Persons per Household



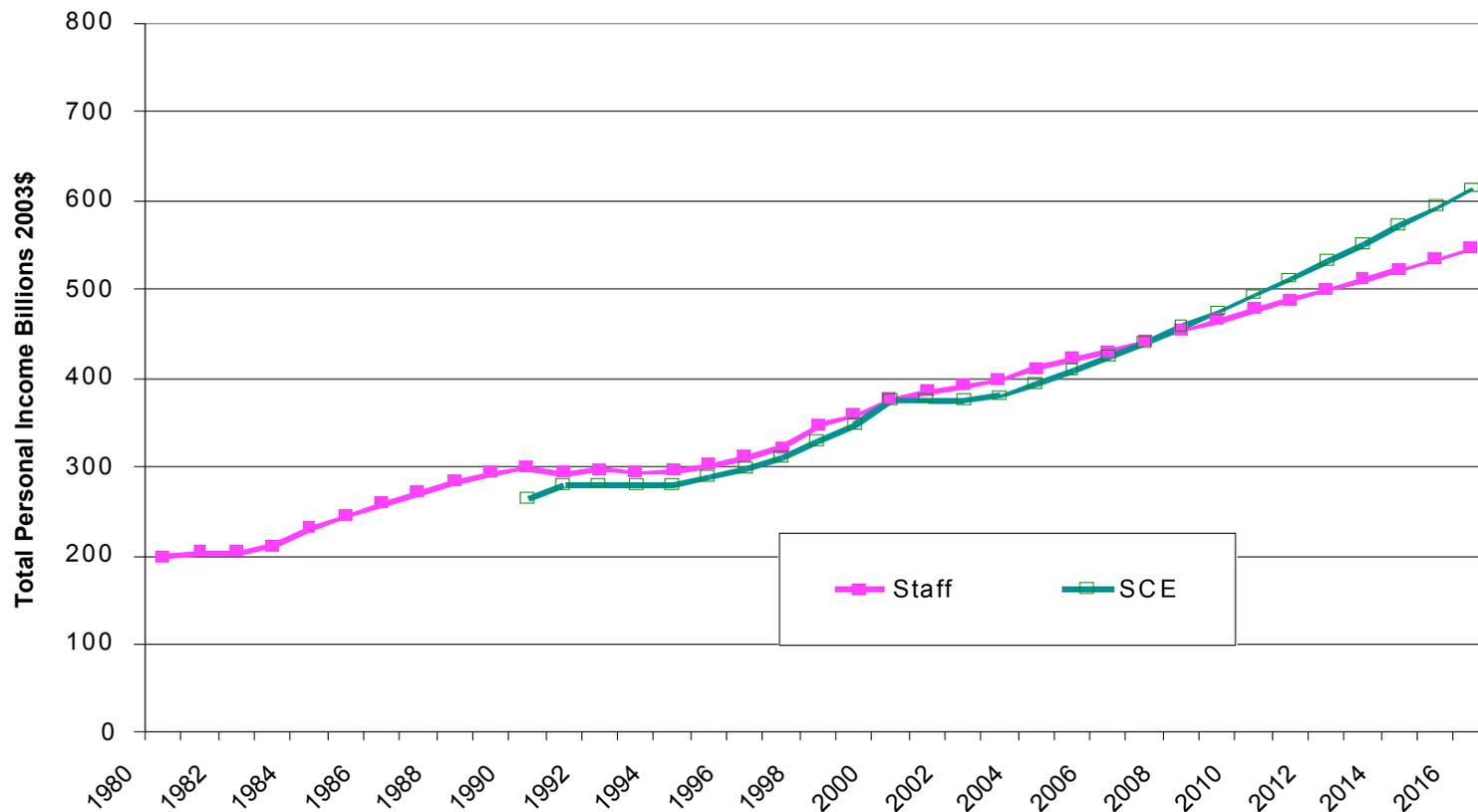
SCE Planning Area Use per Household



SCE Planning Area per Capita Income



SCE Planning Area Total Personal Income

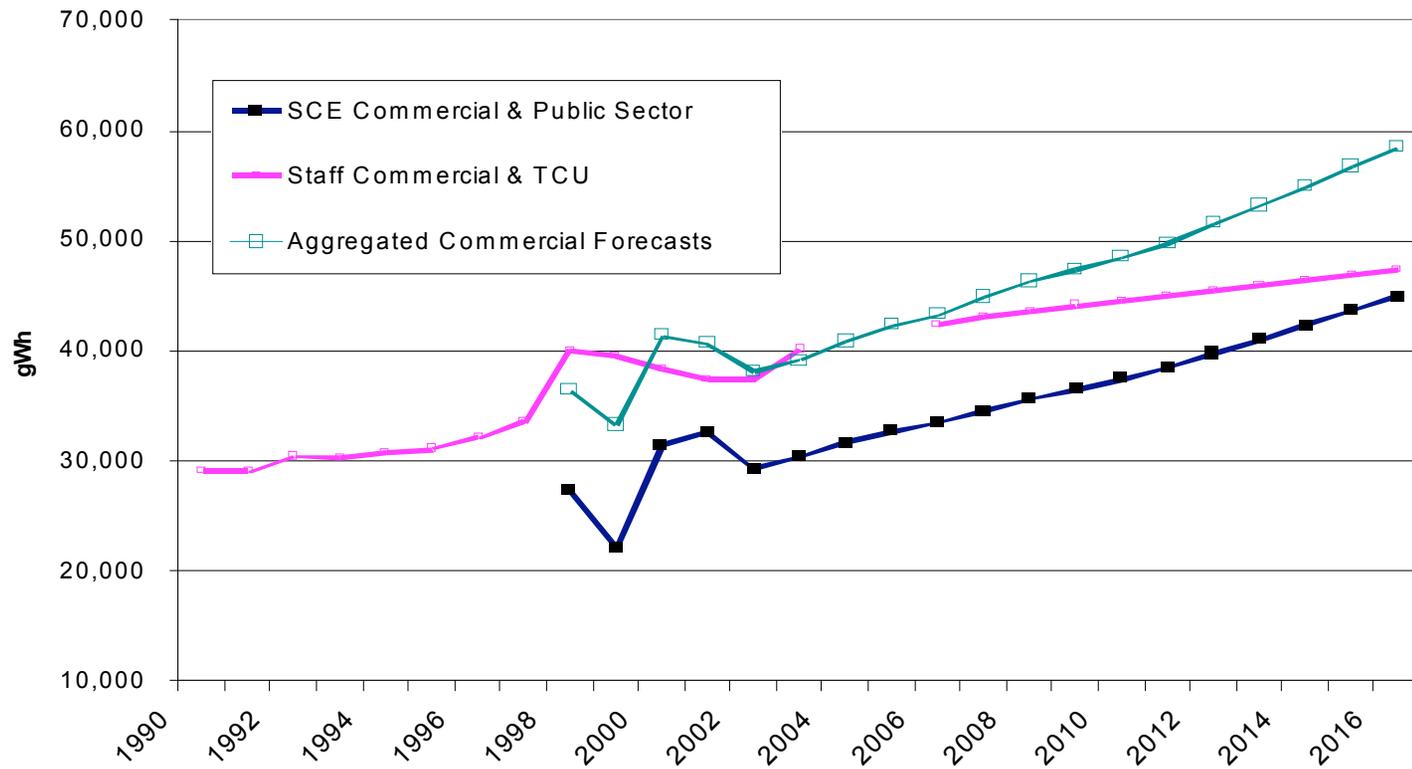


Commercial Sector Forecasts

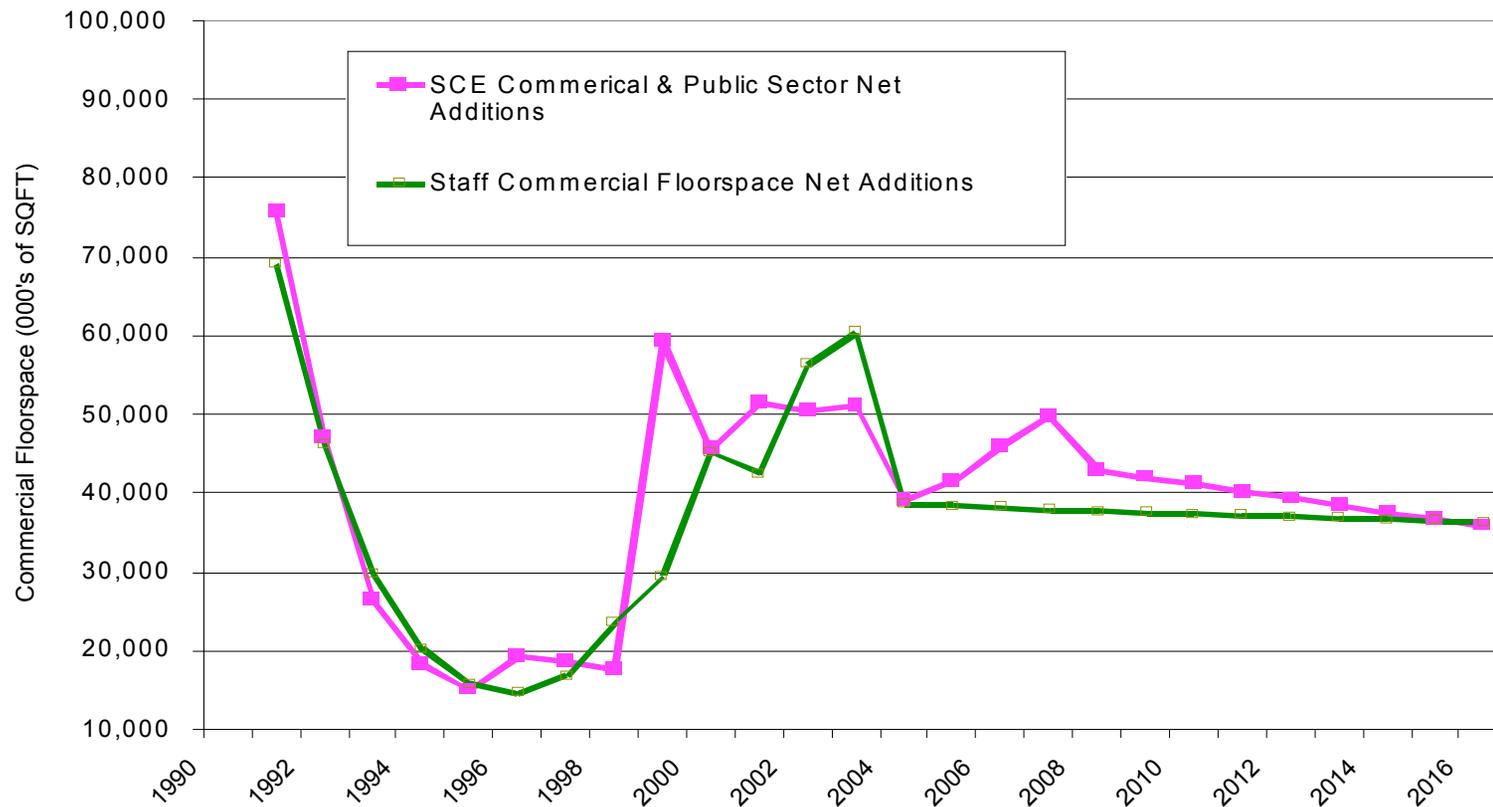
- **SCE commercial forecast is higher than staff**
- **SCE has higher short term floorspace additions**
- **SCE continues pattern of increasing use per square foot seen over the last 10 years**
- **SCE historic use per square foot is clouded by direct access consumption**
- **Staff forecast projects decline in use per square foot due to non-residential building standards and a leveling off of office equipment consumption**



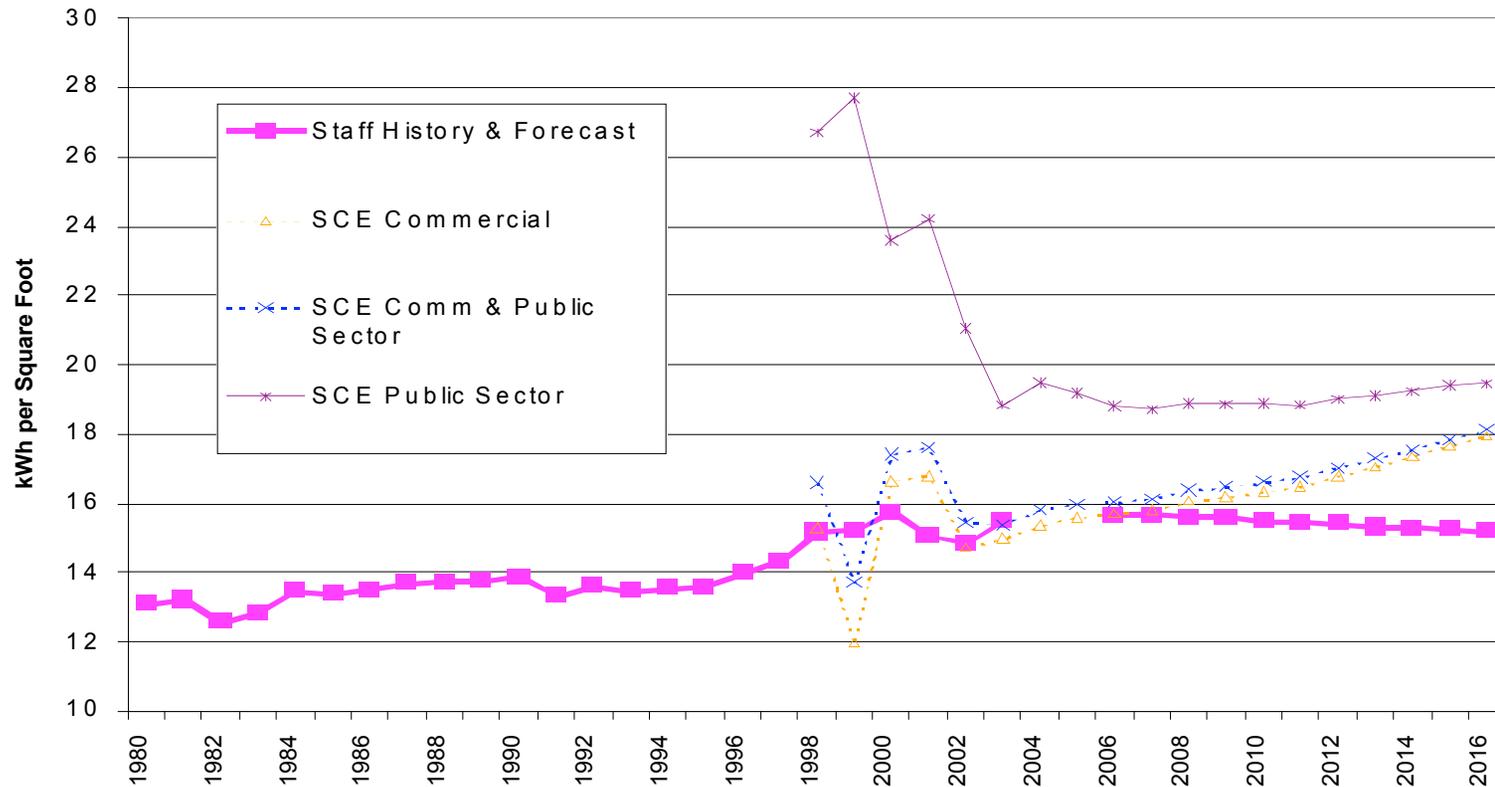
SCE Planning Area Commercial Forecasts



SCE Planning Area Commercial Floorspace Additions



SCE Planning Area Commercial Building Use per Square Foot

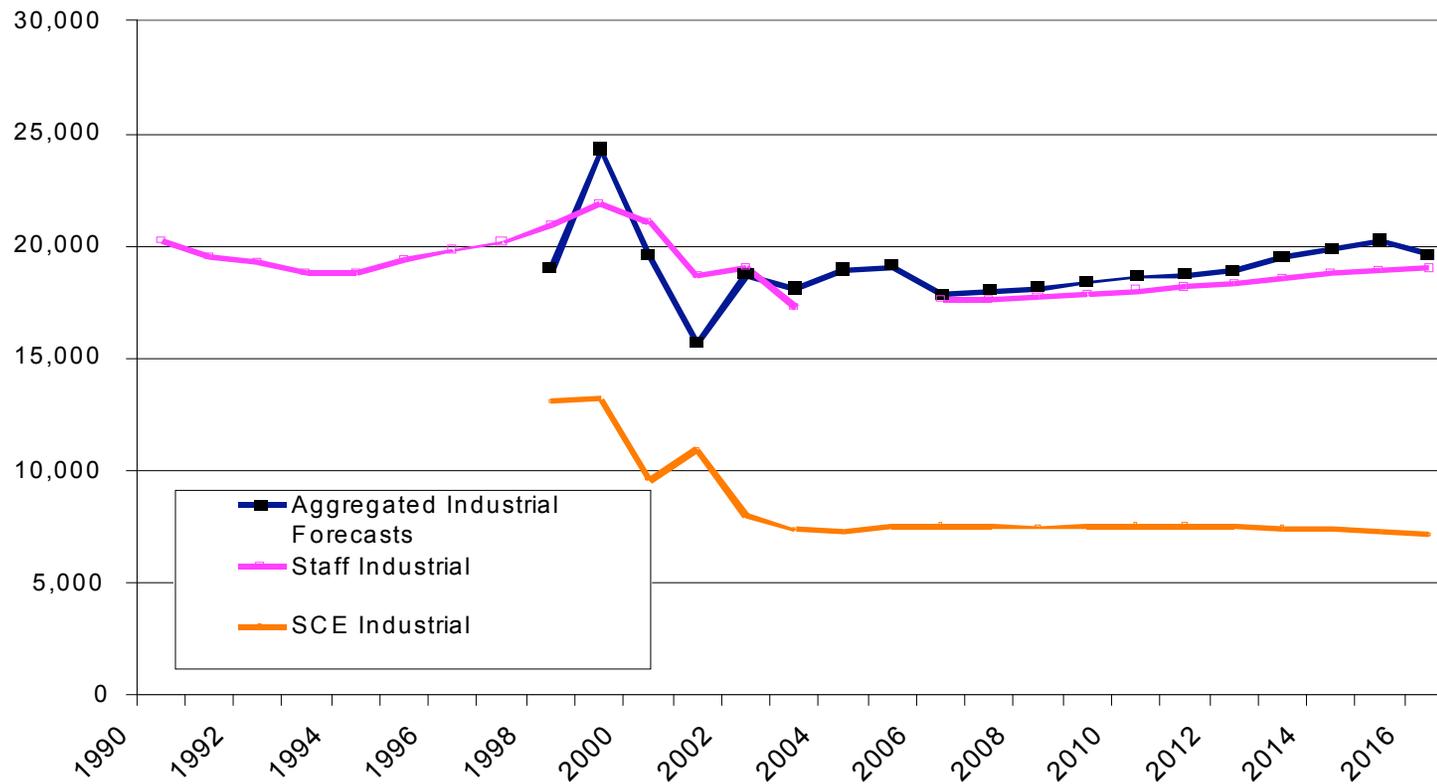


Other Sector Comparisons

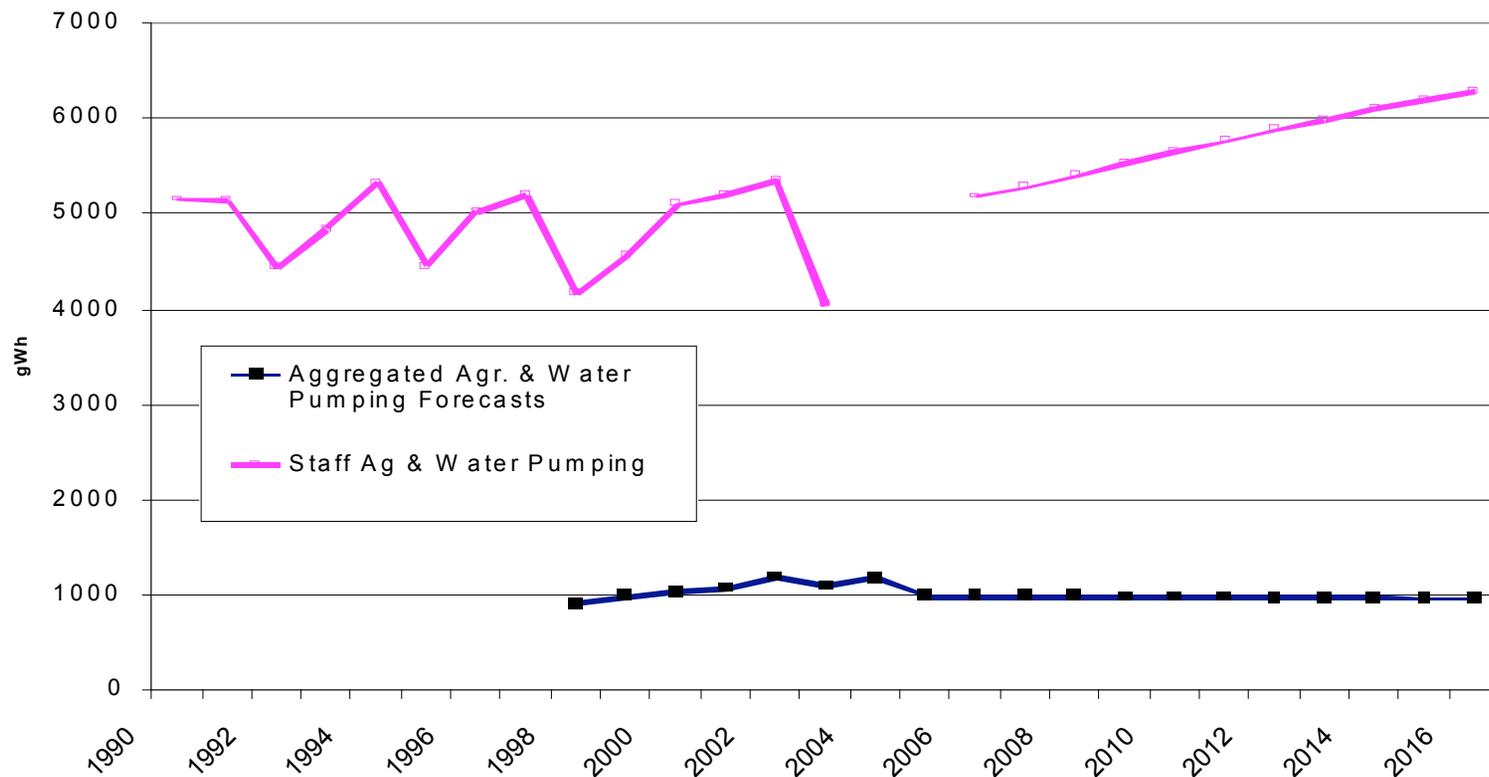
- **Industrial forecasts are similar**
- **Staff Agriculture and Water Pumping forecast is higher because of anticipated increased pumping loads**
- **SCE assumes more growth in Self Generation**



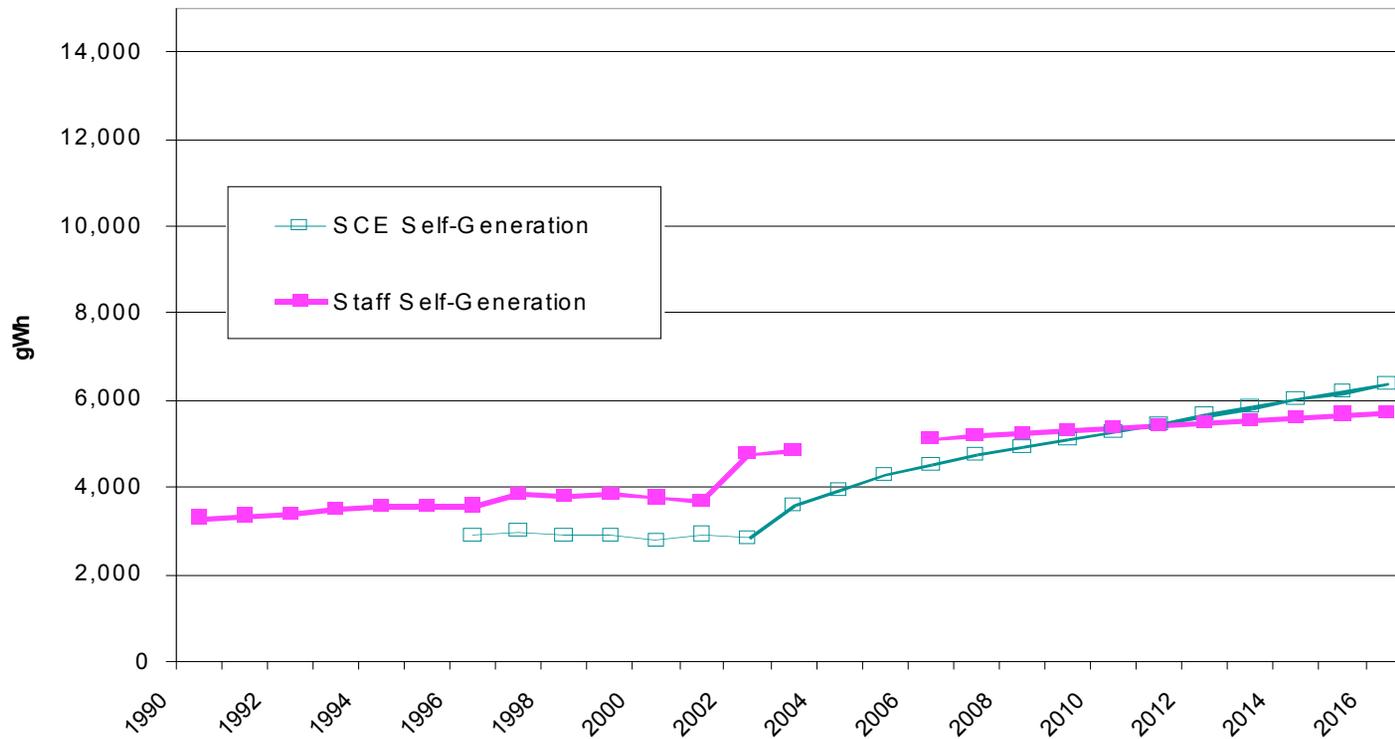
SCE Planning Area Industrial Electricity Use



SCE Planning Area Agriculture and Water Pumping Electricity Use



SCE Planning Area Self Generation Energy Forecast



SCE Planning Area Self-Generation Coincident Peak Forecast

